

COLOMBO MUNICIPALITY.



Administration Report

1919

Public Health Department.

REPORT BY WM. MARSHALL PHILIP, M.B., D.P.H.,
Medical Officer of Health.



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From the MEDICAL OFFICER OF HEALTH, COLOMBO, to the CHAIRMAN, MUNICIPAL
COUNCIL, COLOMBO.

No. 133.

Colombo, 23rd March, 1920.

Fourteenth Annual Report of the Public Health Department, 1919.

SIR,

I HAVE the honour to forward the Annual Report of the Public Health Department for the year 1919.

The Vital Statistics of Colombo have undoubtedly been affected by the conditions which have arisen as a result of the war, and a number of very interesting and important investigations are indicated, but owing to the much too brief time allotted for the preparation of this Report, it is greatly regretted that it has been impossible to do justice to what is a vitally important subject from a Public Health point of view.

I am, &c.,

WM. MARSHALL PHILIP,
Medical Officer of Health.

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DEATHS (all causes)

INFANT MORTALITY
(Deaths under one year of age per 1000 births)

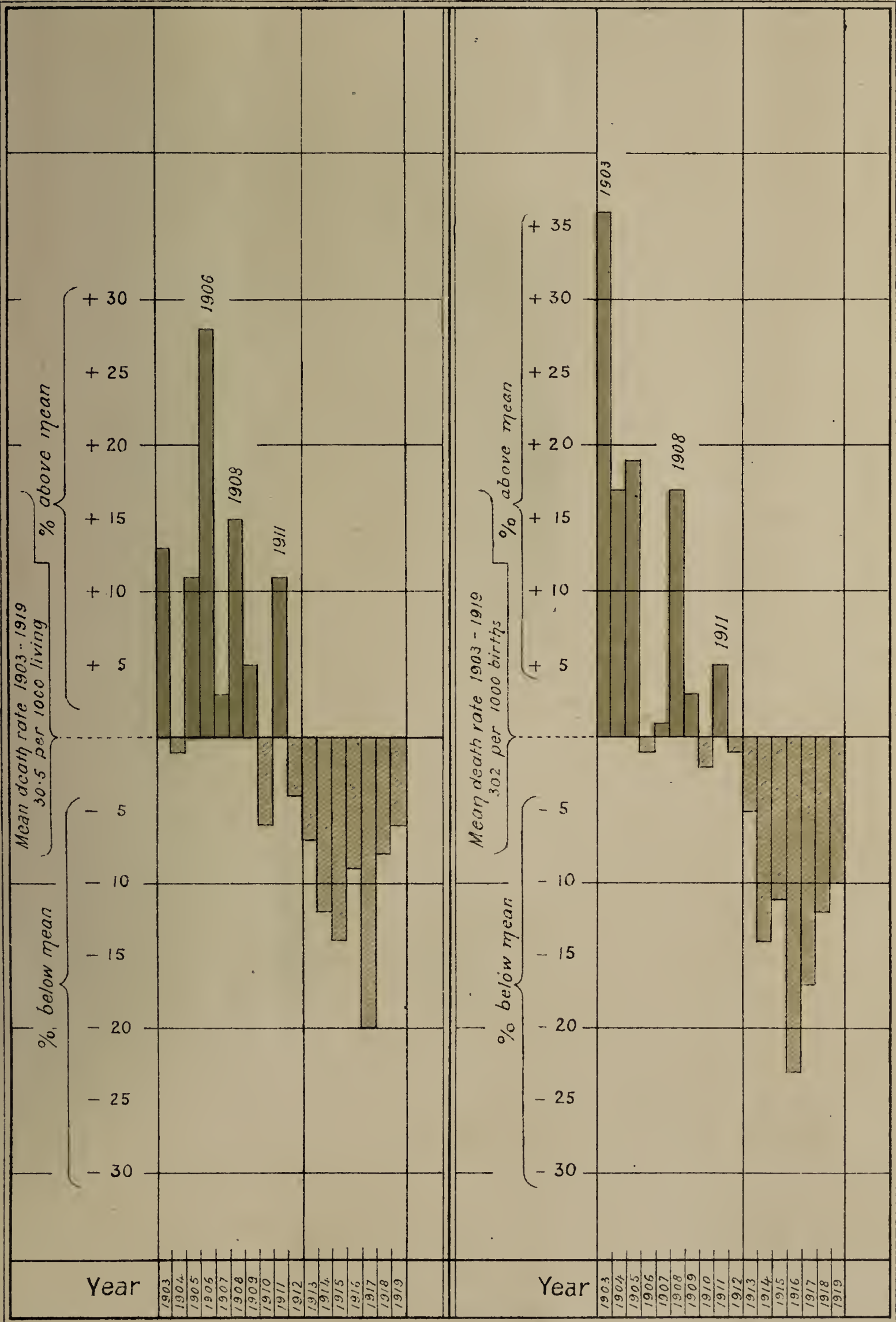


DIAGRAM II

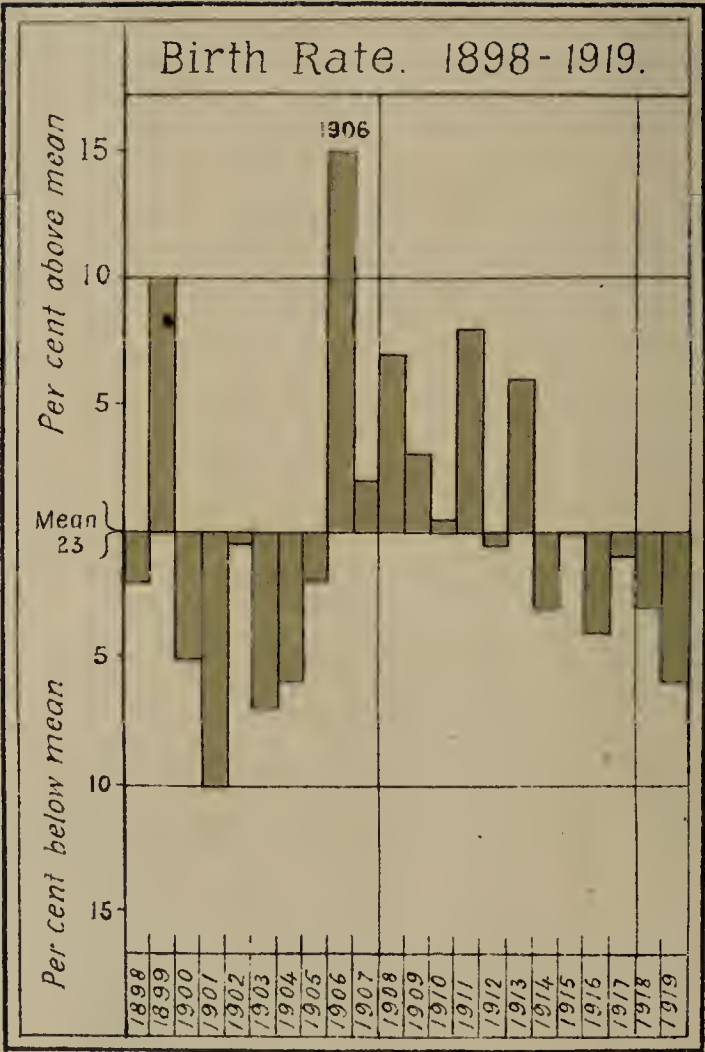


Photo. Litho. S. G. O. Colombo. 14. 7. 20.

Part I.

1. **General.**—The birth-rate during 1919 was 21·7 per 1,000 living, which is the lowest birth-rate recorded in Colombo for 15 years. The general death-rate, after falling from 39·8 in 1906 to 24·3 in 1917, a drop of 39 per cent in 12 years, has risen during the last two years to 28·0 and 28·8 respectively, a total increase of 18 per cent. The infant mortality, after falling from 410 per 1,000 births in 1903 to 234 in 1916, a drop of 43 per cent in 14 years, has risen during the last 3 years to 251, 266, and 271 respectively, a total increase of 16 per cent.

The principal event during the year, was the sudden cutting off in May, by the Indian authorities, of the imported rice supplies of the Island, upon which the vast majority of the population are, to a great extent, dependent. As a result, the Island was, for a time, seriously threatened with famine, and Food Control accompanied by rationing of rice had to be introduced. It speaks well for the success of the measures adopted that the health of the people as a whole, as indicated by the general death-rate, did not suffer, the death-rate during the third quarter of the year, *i.e.*, immediately after the introduction of rationing, being, with a single exception, the lowest third quarter's rate ever recorded in Colombo. That, however, the introduction of rationing was not entirely without ill effects is explained later in connection with the increase of Enteric fever and Measles, while the shortage of rice appears to have been indirectly responsible for an increase of Plague, owing to the merchants having imported and stored large quantities of grain other than rice in their non-rat-proof buildings in the Pettah.

Influenza once more swept over the town in two waves, and was mainly responsible for such increase as occurred in the general death-rate.

The year was, from an administrative point of view, an exceedingly busy one for the Public Health Department. My appointment as Deputy Food Controller in the Manning Markets, a post which I held for four months, entailed excessively hard work in which the whole of the head quarter's staff of the Public Health Department participated. The Sanitary Inspectors in particular, upon whom the brunt of the out-door work necessarily fell, were exceedingly hard worked, and I cannot speak too highly of the manner in which they performed their duties.

An Anchylostomiasis Survey was undertaken in the town during the year by the Public Health Department, the result of which is given later. The question of the prevalence of Malaria acquired in Colombo was also enquired into, and the conclusion was arrived at that Colombo is, to all intents and purposes, a Malaria free town. A census of cesspits, and of public bathing wells in the town was taken. For particulars in regard to these and other branches of work, reference may be made to the body of the Report.

2. **Meteorology.**—(See statement 1).—The year 1919 was an unusually hot, humid and trying one. The monthly mean temperature for the year was 81·0° as against the average of 80·7°, while the total rainfall was 93·70 inches, as against the average of 80·04 inches. The excess rain fell chiefly in May, with 20 inches, and in September, when 16·74 inches were recorded, as against the averages for 12 years of 13·13 and 5·56 inches for these months respectively. The mean humidity during the year was 81 per cent as against the average of 80 per cent.

3. **Population.**—(See statements 2 and 3).—The population of Colombo, as estimated in this Department, to the middle of the year 1919, was 271,616. As however eight years have elapsed since the Census of 1911, the correctness of the estimates of population and consequently the correctness of the birth and death-rates, is open to doubt, especially as regards wards like Wellawatte and Kollupitiya towards which the population is gravitating and where a large number of new buildings has been erected. No reliable correction can however be made on this account until the figures of the 1921 Census are available.

4. **Marriages and Births.**—(a) *Marriages.*—The marriage-rate has been described by Dr. Farr, the organiser of the first complete Census of England, as the “barometer of prosperity.” Unfortunately the marriages recorded in Colombo town are not separately tabulated; but the Registrar General has kindly furnished the following statement showing the number recorded since 1898 in the Colombo District, which includes in addition to the town a considerable rural area beyond but adjoining the town, and they are of interest as the decreases and increases in the number of marriages in Colombo itself probably followed much the same curve:—

General Marriages in Colombo District since 1898.

Year.	No. of Marriages.	Year.	No. of Marriages.
1898	4049	1909	4097
1899	3832	1910	4298
1900	3874	1911	4123
1901	4113	1912	4314
1902	3970	1913	4766
1903	3832	1914	4649
1904	3627	1915	4434
1905	3787	1916	4534
1906	3028	1917	4521
1907	3582	1918	4117
1908	4060	1919	3567

The chief points of interest in this statement are the sudden drop in the number of marriages in the years 1906, 1918 and 1919. The drop in 1906 was doubtless due to the abnormal wave of mortality which swept over the whole Island that year, while the drop in 1918 was due to the outbreak of Influenza, and the further drop in 1919 was due to the rice troubles.

Minor epidemics such as have been experienced here in the case of Plague, Small-pox, Enteric, &c., have not affected the Marriage and Birth-rates, the range of these diseases having been so limited that only an insignificant fraction of the total population was affected.

(b) *Births.*—(See statements 4 and 5).—The birth-rate during the year 1919 was 21·7 per 1,000 of population, which is the lowest recorded in Colombo for 15 years, the average rate during the preceding 10 years 1909–1918 being 23·1, while the rate in 1918 was 22·4.

The birth-rate for all Races in Colombo has shown a slight tendency to fall since 1913, *i.e.*, during the period of the War, the most marked drop having however occurred in 1919. The European birth-rate has dropped markedly during the last two years, owing no doubt to the fact that the majority of the young men of marriageable age left the Island on War Service, many of whom married in Europe. The Burgher birth-rate shows a very marked drop in 1919, as also does the Malay birth-rate, which may be an indication that these two races have been hardest hit by the recent great rise in the price of rice and the general cost of living. The Sinhalese and the Tamil birth-rates on the other hand have scarcely been affected at all, while the Moor birth-rate shows a slight improvement in 1919 after the marked drop in 1918.

5. **Deaths.**—(See statements 6 and 7 in appendix).—The number of deaths registered in Colombo in 1919, was 7,823, giving a crude death-rate of 28·8 per 1,000 persons living, as compared with the average of 28·2 during the ten years 1909—1919, and a rate of 28·0 in 1918. The crude rate includes 966 deaths in the Hospitals of non-residents of the town, exclusive of which the death-rate in 1919 was 25·2 per 1,000. The further correction for age and sex constitution brings the death-rate to 29·7 per 1,000, which is the nearest approach to the true death-rate of Colombo which can at present be obtained. This corrected death-rate is comparable only with the rates of other places which have been similarly corrected.

The general death-rate in Colombo (see diagram I.) fell during the period of 12 years 1906—1917, from 39·8 to 24·3 per 1,000, a drop of 39 per cent. During the last two years however it has risen to 28·8, an increase of 18 per cent. This increase has been due mainly to Influenza and its complication Pneumonia, as diagram V, clearly shows. The statement below shows the death-rate during each quarter of 1919 compared with the average rates during the corresponding quarters of the previous 10 years. It will be seen that, except when an Influenza wave was in progress, the general death-rate 1919 was below the average, the third quarters rate of 26·1 in 1919, following almost immediately after the introduction of rice rationing in the town being, with the single exception of the record low rate of 1917, the lowest third quarter's rate ever recorded here.

Quarterly Death-rates.

		Death-rates.		
Quarter.		Average 1909—1918.		1919.
I	..	29·3	...	29·1
II	...	25·7	...	29·6 (Influenza wave)
III	...	28·2	...	26·1
IV	..	29·4	...	30·8 (Influenza wave)

The relation between the weekly rises and falls in the death-rate and the principal causes of deaths is shown on diagrams III. and IV.

6. **Ward Death-rates.**—(See statement 6).—As column (d) in statement 6 shows, Maradana Ward had the highest corrected mortality in 1919, followed by Kotahena and Slave Island; the lowest, exclusive of the non-residential Fort and Pettah Wards, being in Kollupitiya.

As mentioned previously, the correctness of these ward rates being dependent upon the correctness of the estimates of the ward populations, they must be accepted with reserve, especially as regards wards like Wellawatte and Kollupitiya, towards which the population is gravitating, and in which a great number of new buildings has been erected since the last Census. The relatively high death-rate in Slave Island was apparently due mainly to the high mortality which occurred amongst Malays and ' Others '.

7. **Race Death-rates.**—(See statement 7).—As column (d) in statement 7 in the appendix shows, the foreigners classed as ' Others ' had the highest corrected death-rate, *viz* : 34·9 followed by Malays with a rate of 33·2, while the Europeans had the lowest death-rate, *viz* : 9·8. The European rate however requires a number of further corrections for which the necessary data are not available. The high rate amongst the ' Others ' appears to have been due primarily to Influenza, but the largest number of their deaths was as usual registered as due to Pneumonia. In like manner the mortality amongst the Malays was ascribed chiefly to such causes as Senility, Debility, Pneumonia and Phthisis, in a considerable proportion of which, especially as regards Pneumonia, it is probable that Influenza was primarily responsible.

8. **Infant Mortality.**—(See statements 11; 12 and 13).—*Deaths*, 1,603. *Death-rate*, 271 per 1,000 births. The average infant death-rate during the 10 years 1909—1918 was 277, while the rate during 1918 was 266.

Infant Mortality. Rate per 1,000 births. 1898 to 1919.

Year	Date.	Year.	Date.
1898	...	1909	...
1899	...	1910	...
1900	...	1911	...
1901	...	1912	...
1902	...	1913	...
1903	...	1914	...
1904	...	1915	...
1905	...	1916	...
1906	...	1917	...
1907	...	1918	..
1908	...	1919	...

DIAGRAM III

WEEKLY DEATH RATE. 1919.

Chief Causes of Rises indicated in brackets

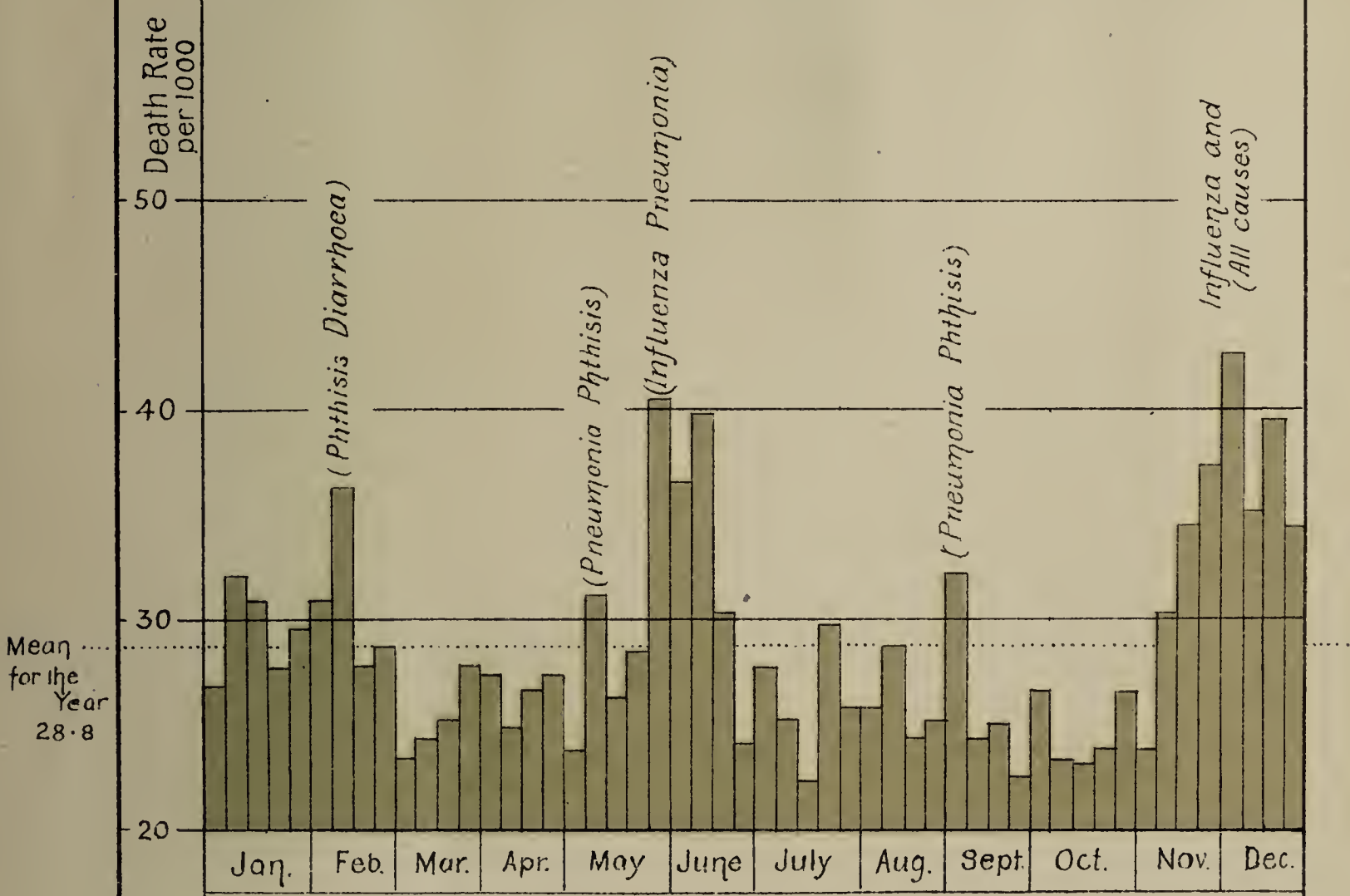


DIAGRAM IV 1919 Infantile Debility



DIAGRAM V.

All Pulmonary

Mean death Rate
1903 - 1919 = 7.76
per 1000 living

Phthisis

Mean death Rate
1903 - 1919 = 3.26
per 1000 living

Pneumonia

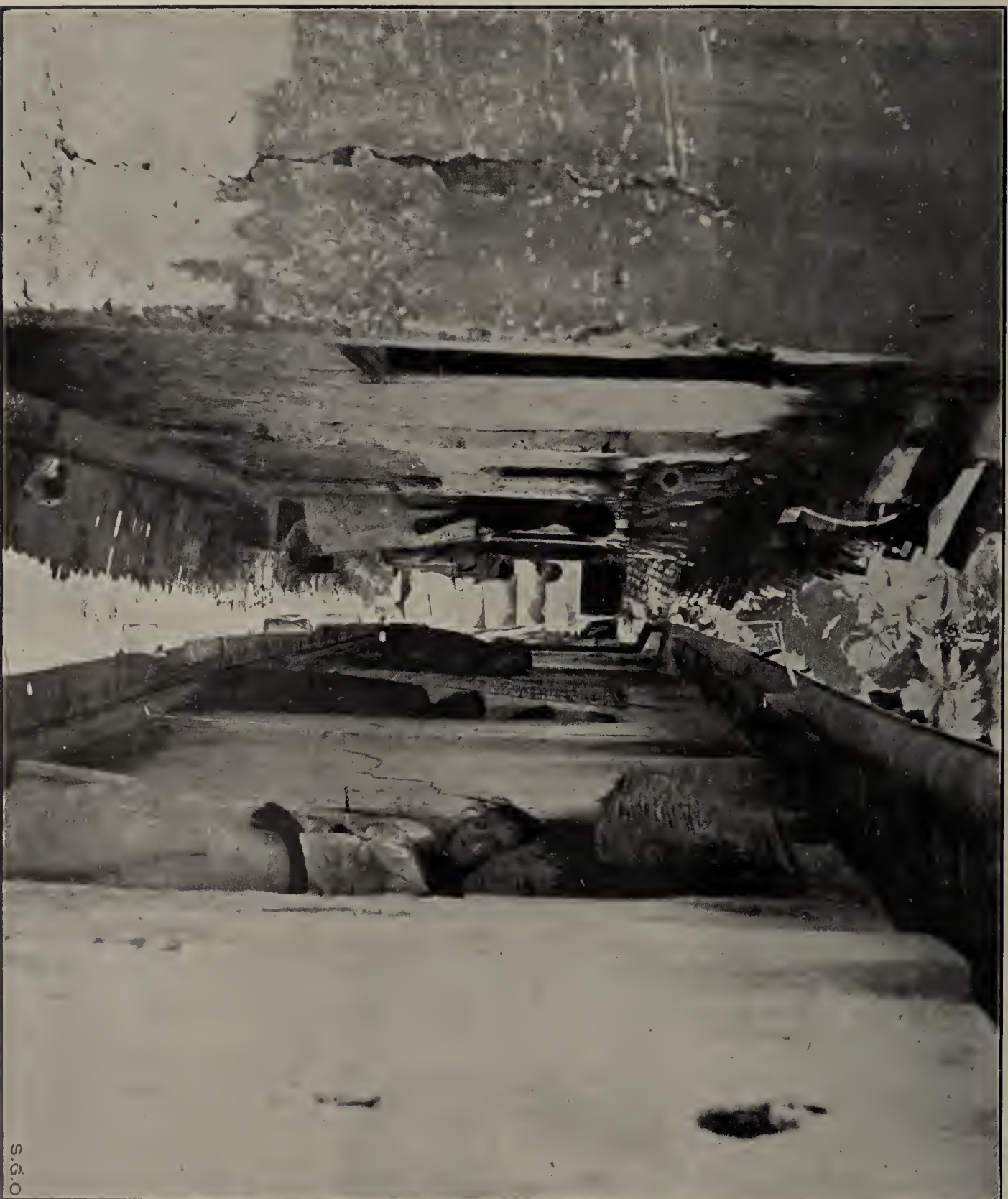
Mean death Rate
1903 - 1919 = 3.46
per 1000 living

% Above Mean

Mean

% Below Mean

1903 1904 1905 1906 1907 1908 1909 1910 1911 1912 1913 1914 1915 1916 1917 1918 1919



S.G.O

21a Demetegodde
Before improvement
The worst Phthisis Record in Colombo.



S.G.O

21a Demetegodde 1919.
Same place partly improved
Same board fence visible
in back ground.

SPOT MAP I

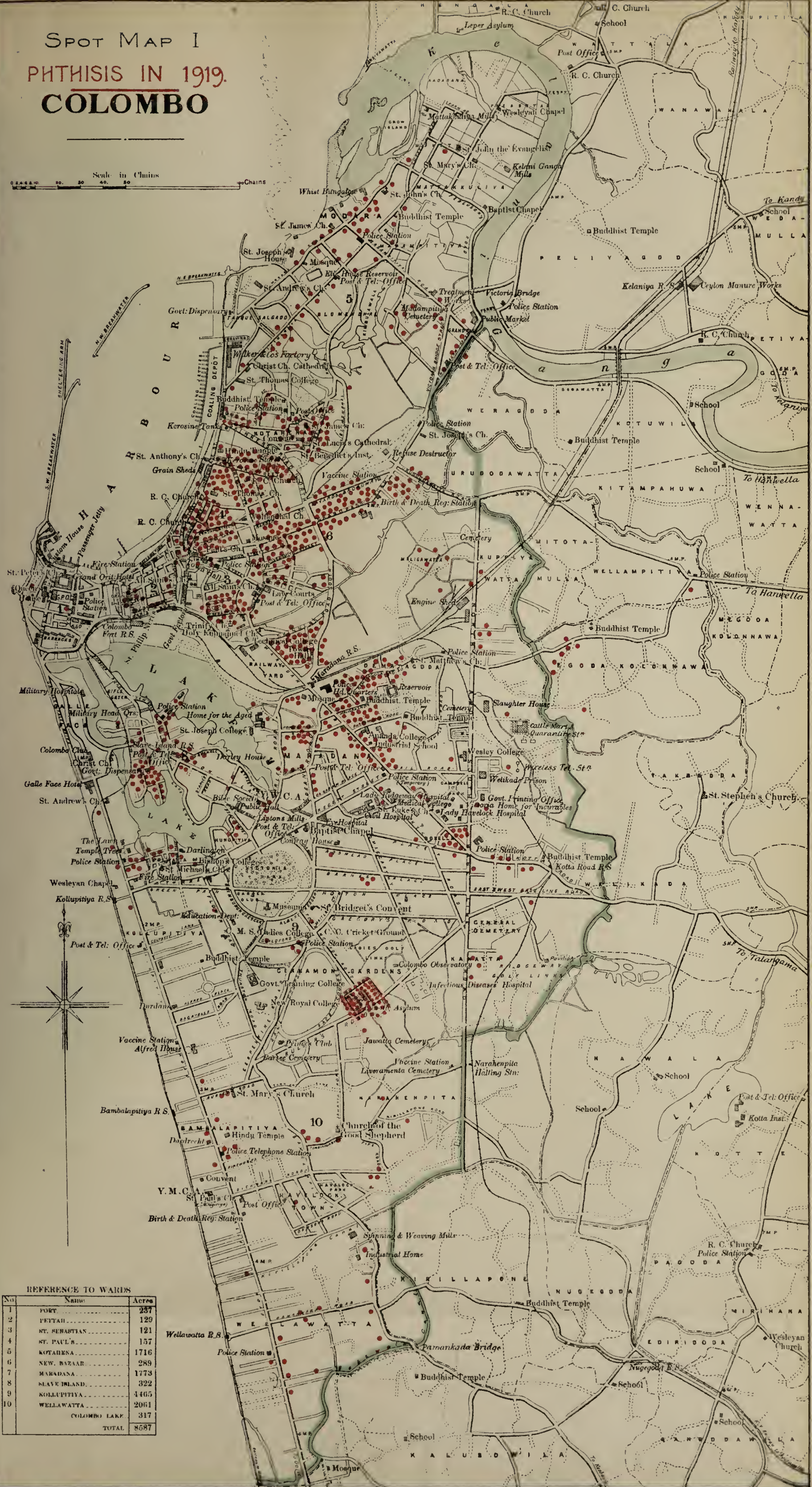
PHTHISIS IN 1919.

COLOMBO

Scale in Chains

0 20 40 60 80

Chains



REFERENCE TO WARDS

No	Name	Acres
1	FORT	237
2	PETTAH	129
3	ST. SEBASTIAN	121
4	ST. PAUL'S	157
5	KOTAHENA	1716
6	NEW BAZAAR	289
7	MARADANA	1773
8	SLAVE ISLAND	322
9	KOLUPITIYA	1405
10	WELLAWATTA	2061
	COLOMBO LAKE	317
	TOTAL	8587

As the statement above and diagram I. show, the infant mortality in Colombo fell during the comparatively brief period of 14 years from 410 in 1903 to 234, per 1,000 births, in 1916, a drop of 43 per cent. During the last 3 years however it has risen to 271, an increase of 16 per cent.

An analysis of the death returns, a summary of which is given in the statement below, shows that the chief causes of this increased infant mortality were (a) Atrophy and Debility, (b) Bronchitis and Pneumonia. The increase in the mortality ascribed to Atrophy and Debility began in 1917, while the increase in Bronchitis and Pneumonia began in 1918 concurrently with and as the result of the outbreak of Influenza. The comparatively low mortalities during the last few years from Convulsions, Diarrhoea, and digestive disorders generally, Premature Birth, and Tetanus are noteworthy, as is also the increase in 1919 in the number of deaths from Congenital Syphilis.

7. Infant Deaths. 1912—1919.

Cause of Death.	1912.	1913.	1914.	1915.	1916	Average 1912—1916.	1917.	1918.	1919
Convulsions ...	472	472	451	482	388	566	404	365	418
Atrophy and Debility ...	233	277	262	317	307	349	417	445	462
Pneumonia and Bronchitis	269	302	198	189	157	279	180	301	220
Diarrhoea and other disorders ...	173	264	207	227	169	260	215	189	200
Premature Birth ...	135	117	96	107	91	136	105	71	92
Tetanus ...	77	51	27	29	16	50	25	29	17
Syphilis ...	20	23	28	17	19	27	16	28	37

The infant mortality is generally regarded as the most delicate test of the improvement or otherwise of the conditions affecting the Public Health in any place, and the statistics given in the two statements above indicate that the conditions in Colombo, after improving markedly during a period of 14 years, began in 1917, or more probably in 1916, to be less favourable to infants. In seeking for an explanation of this increase in the infant mortality during the last 3 years, the injurious effects of overcrowding, which has certainly been getting steadily worse since the war began, must not be overlooked. Apart from this however, which has only slowly come into operation and cannot be remedied by ordinary sanitary measures, the increased infant mortality has apparently not been due to the sanitary state of the town having degenerated in other respects, otherwise such causes of deaths as Diarrhoea and Infantile Convulsions would certainly have shown a marked increase which, as already shown, is not the case. Then again, Influenza has undoubtedly been responsible for some of the increase in the number of infant deaths, but it did not come into operation until 1918, whereas the infant death-rate began to rise in 1917. Taking all these points into consideration, and having regard to the fact that the increased mortality was due largely to an increase in the number of deaths from Debility, one is forced to the conclusion that one of the principal causes, if not the chief cause, of the rise in the infant death-rate is lack of proper nourishment for the pregnant women and their infants. This seems highly probable in view of the greatly increased cost of living since the war broke out, a subject which is dealt with later. (See sections 35 and 36.)

With the object of relieving the prevailing distress in Colombo various philanthropic associations have recently begun to give practical assistance by the establishment of depôts for the distribution of free food and milk, and in view of what has been said, no more useful branch of work could have been undertaken. There can be little doubt that if this relief could be directed chiefly to the assistance of the pregnant women and the young children amongst the poorest classes, excellent results would in due course follow. The Municipal Council has also, through the Mayor's Relief Fund, undertaken the feeding of school children in the Government Schools, an excellent measure in these times of distress.

Maternity and child welfare exhibitions are most useful as a means of attracting the attention and arousing the sympathy of people who are in a position to help in these philanthropic schemes, by donating funds or by giving personal services in organising, maintaining and conducting such useful adjuncts to the Public Health work as free food depôts, free milk depôts, and relief works generally. These exhibitions cannot however be expected to attract the class of poor people whom it is desired to help, until the standard of education and intelligence of these people has been raised to a much higher level than that at which it now stands; but in the meantime, as has been said, much can be done by ministering to their physical needs, a task which must devolve mainly upon the wealthier sections of the community. The technical and frequently very complicated problems which are involved in dealing with the sanitary conditions affecting the public health, must, on the other hand, necessarily be left in the hands of the sanitary authorities.

The increase in the number of deaths from Congenital Syphilis which was referred to above may be the result of a genuine increase in the prevalence of that disease amongst adults, or it may on the other hand merely represent the hastening of the end of a number of already damaged lives which, under more favourable circumstances, might have survived at least for some time longer.

9. Principal Causes of Deaths.—(See statement 14 and diagrams IV. and VI).—By far the largest number of deaths in 1919 was ascribed to Pneumonia, with a total of 1,235 as against 1,621 in 1918. A great many of these deaths were associated with Influenza which however is credited in the death returns with having caused only 421 deaths. Next in importance comes Phthisis with 705 deaths, then Diarrhoea and Enteritis with 586 deaths. Debility 522 deaths and Infantile Convulsions 418 deaths.

10. Principal Epidemic Diseases.—(See statement 15).—Exclusive of Influenza, which is not a notifiable disease and in respect of which there is consequently no complete record of cases, the most prevalent infectious disease in Colombo during 1919 was Phthisis with 1,506 cases. Next comes Enteric fever with 682 cases, then Chickenpox 522 cases, Measles 405 cases, Plague 89 cases, Smallpox 21 cases (18 from ships in Harbour), Diphtheria 17 cases, Cholera 11 cases (10 from the Port and 1 from outside).

11. **Pulmonary Diseases.**—(See statements 16 and 17).—(Phthisis, Pneumonia, Bronchitis). *Deaths*, 2074. *Death-rate*, 7.64 per 1,000. The mortality from this group, which had shown a marked improvement for a series of years, had a severe set back in 1918 as the result of the outbreak of Influenza and the consequent great increase in the number of deaths from Pneumonia. There was however a decided improvement in this respect in 1919, as diagram V. shows.

12. **Phthisis.**—(See statement 16 and diagram V).—*Cases*, 1,506; *Deaths*, 705; *Death-rate*, 2.60 per 1,000 population. The mortality from Phthisis, which is, next to Pneumonia, the greatest cause of deaths in Colombo, rose steadily during a series of years until, in 1909, it stood at 4.13 per 1,000 of population or 27 per cent above the mean for the period 1903—1919. It then dropped suddenly in 1910 to 4 per cent below the mean, at or near which level it remained until 1917 when it showed another sharp drop, reaching 22 per cent below the mean, at which it remained in 1918.

In 1919 it stood at 20 per cent below. As diagrams IV. and V. indicate, the Phthisis curve in 1919 to some extent followed the Influenza curve. Making all due allowance for the fact that spot maps do not as a rule indicate the true prevalence of diseases so much as the density of population, the accompanying spot map of Phthisis is interesting for the reason that it does, as a matter of fact, fairly accurately pick out the insanitary areas where the housing conditions are at their worst. The accompanying photograph shows typical Phthisis dwellings of the worst kind, this particular range of tenements having the worst record for Phthisis in the worst Phthisis street in Colombo. It is now under process of demolition with a view to reconstruction on sanitary lines. (Photo since obtained showing result of demolition).

13. **Pneumonia.**—(See statement 16 and diagram V). *Deaths*, 1,235; *Death-rate*, 4.55 per 1,000 of population.—Pneumonia, like Phthisis, steadily increased during a series of years as a cause of deaths in Colombo until, having reached a point 20 per cent above the mean, in 1908, it then began to show signs of improvement, and in 1914 suddenly dropped to 36 per cent below the mean. During the next 3 years it showed a tendency to increase again, and upon the appearance of Influenza in 1918 it suddenly shot up to the great height of 6.12 deaths per 1,000 of population or 77 per cent above the mean.

During 1919 it fell to 4.55 per 1,000 or 32 per cent above the mean, notwithstanding the fact that Influenza again broke out in two waves during the year. The close association between Influenza and Pneumonia is clearly shown on diagram VI.

1918. 14. **Influenza.**—*Deaths*, 421.—It is interesting to compare the experience as regards Influenza during the two years 1918 and 1919. During 1918 Influenza swept over the town in two great waves, separated by an interval of about 6 weeks during which it appeared to have practically vanished. The first wave which appeared at the end of May, attacked enormous numbers of people but caused little or no mortality and disappeared at the end of July. The second wave which appeared during the 3rd week of September was on the other hand complicated by a virulent type of Pneumonia, and is believed to have been responsible for about 1,000 deaths during the year. It caused the general death-rate to shoot up in 3 weeks from 21.3 to 65.2 per 1,000.

1919. 1919. Although, partly owing to the rice troubles, comparatively little was heard of Influenza, as an epidemic, in 1919, the death returns, as depicted in diagram No. VI, clearly show that it again swept over the town in two waves, one in May—June, and the other and much smaller one in November—December, the interval between the two epidemics being comparatively free and lasting about 20 weeks instead of only 6 weeks as in 1918.

There was a marked difference in character between the 1918 and 1919 epidemics. Thus, whereas the first wave in 1918 was unattended by complications and caused little or no mortality, the first wave in 1919, although occurring at the same time of year, was attended by a considerable amount of Pneumonia and caused the general death-rate to shoot up in one week from 28.4 to 40.5 per 1,000. The second wave in 1919 was also accompanied by a good deal of Pneumonia, but was rather less sharply defined than the preceding wave and, compared with the corresponding wave in 1918, was relatively insignificant. It nevertheless caused a good deal of mortality and was chiefly responsible for the rise in the general death-rate from 23.8 to 42.8 within a period of 4 weeks.

15. **Diarrhoeal Diseases.**—(See statement 18 and diagram VII.)—(Diarrhoea or Enteritis and Dysentery.) *Deaths*, 808; *Death-rate*, 2.98 per 1,000.—This group which includes what are sometimes spoken of as 'filth diseases' is, as diagram VII. shows, one of the most satisfactory features of the vital statistics of Colombo, the mortality having steadily fallen from 79 per cent above the mean in 1906, to 55 per cent below the mean in 1918. There was an increase in 1919 which, as diagram IV. shows, occurred in 3 not very well marked waves, one in January—February when the number of deaths from this cause reached the highest number recorded during the year and which appears to have been associated with climatic conditions, another in June—July, and a third in November—December. The second and third rises occurred simultaneously with and were evidently associated with the 2 Influenza waves.

16. **Fevers.**—(See statements 19 and 20 and diagram VIII.)—(Enteric, Simple Continued, Remittent and Intermittent Fevers.) *Deaths*, 373; *Death-rate*, 1.38 per 1,000.—The mortality from this group, which fell from 82 per cent above the mean in 1906, to 56 per cent below the mean in 1914, has since then been slowly rising, and during 1919 had a distinct set back. (See remarks under Enteric Fever.)

17. **Enteric Fever.**—(See statements 19, 20 and 21 and diagram IX.)—*Cases*, 682; *Case-rate*, 2.51; *Deaths*, 268; *Death-rate*, 0.99 per 1,000.—One of the most unsatisfactory features of the vital statistics is that Enteric fever, after improving enormously during the 7 years 1908 till 1914 during which period it fell from 112 per cent above to 56 per cent below the mean, has since then shown a distinct tendency to increase, and during 1919 had a serious set back. It is thought that increased personal contact as the result of the increased overcrowding which has been going on, especially since the war broke out and building operations were brought almost to a stand-still owing to the high cost of materials, has had a great deal to do with—if indeed it is not

DIAGRAM VI.

Pneumonia Deaths (weekly)

Mean
21

C

Influenza Deaths (weekly)

Mean
10

B

Crude Death Rate
(All causes weekly)

Death
Rate
per 1000 per annum

Mean for Year
28.8

A

Jan. Feb. Mar. Apr. May June July Aug. Sep. Oct. Nov. Dec.

DIAGRAM VII

All Diarrhoeal

Mean death Rate
1903 - 1919
4.39 per 1000 living

Diarrhoea and
Enteritis

Mean death Rate
1903 - 1919.
2.98 per 1000 living

Dysentery

Mean death Rate
1903 - 1919.
1.41 per 1000

Per cent Above mean

Mean

Per cent Below mean

+ 80
+ 70
+ 60
+ 50
+ 40
+ 30
+ 20
+ 10
Mean
- 10
- 20
- 30
- 40
- 50
- 60

+ 60
+ 50
+ 40
+ 20
+ 10
Mean
- 10
- 20
- 30
- 40
- 50
- 60

+ 120
+ 110
+ 100
+ 90
+ 80
+ 70
+ 60
+ 50
+ 40
+ 30
+ 20
+ 10
Mean
- 10
- 20
- 30
- 40
- 50
- 60

Year

1903
1904
1905
1906
1907
1908
1909
1910
1911
1912
1913
1914
1915
1916
1917
1918
1919

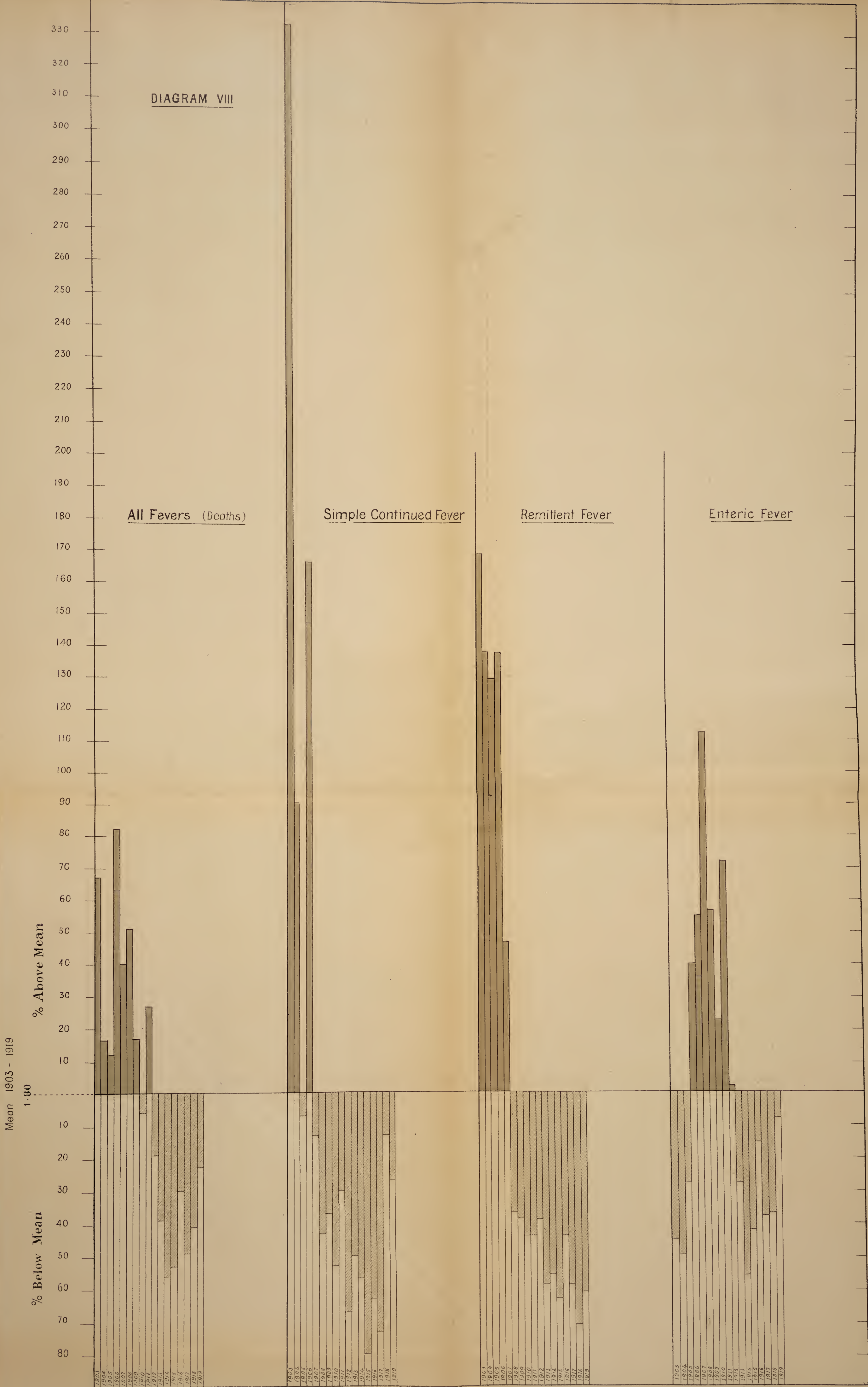
Year

1903
1904
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1918
1919

Year

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1914
1915
1916
1917
1918
1919

DIAGRAM VIII



SPOT MAP II.
ENTERIC FEVER CASES
IN 1919.
COLOMBO

Scale in Chains
0 20 40 60 Chains

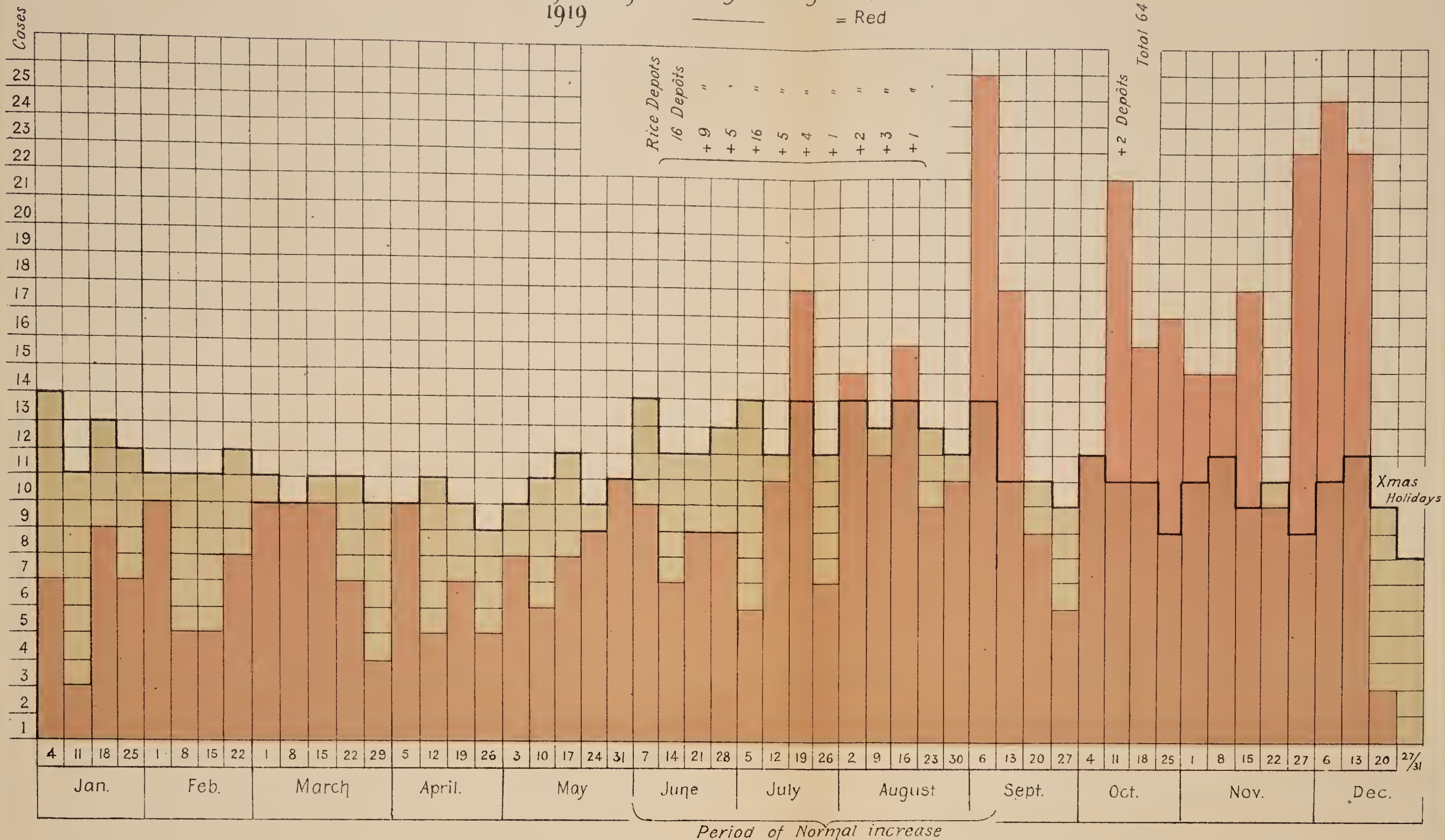


REFERENCE TO WARDS		
No.	Name	Acres
1	PORT	287
2	PETTAH	129
3	ST. SEBASTIAN	121
4	ST. PAUL'S	157
5	KOTAHENNA	1716
6	NEW BAZAAR	289
7	MARADANA	1773
8	SLAVE ISLAND	322
9	KOLUPITIYA	1465
10	WELLAWATTA	2061
	COLOMBO LAKE	317
	TOTAL	8587

DIAGRAM IX ENTERIC FEVER CASES

By date of Registration.
(exclusive of Port and extraurban cases)

1903 - 1918 weekly average = Shaded.
1919 = Red



mainly responsible for the increase of Enteric since 1914. This conclusion is supported by the fact, as explained later, that the establishment in June 1919 of the rice depôt system with its attendant closely packed crowds of people, was immediately followed by a great increase in the prevalence of Enteric Fever.

(a) *Incidence of Enteric in relation to Race.*—(See statement 21.)—The largest number of cases reported, in proportion to their population, in Colombo occurred amongst the Europeans with 33 cases during the year. No fewer than 23 or 70 per cent of these were however infected in foreign countries and were landed sick from ships entering the Port. 1 other case came sick from upcountry, while 2 occurred amongst travelling Railway Officers who may have contracted the infection outside the town. There are thus only 7 apparently Colombo cases to be accounted for. Of these two were young men, recent arrivals in the Island, a class who are notoriously liable to contract Enteric Fever. The facts in regard to another case raised the suspicion of infection having been acquired from a "carrier" who had suffered from the disease in the previous year. The source of infection in the other four European cases was not traced.

Next to the Europeans, the foreigners classed as 'Others', and the Burghers had the highest relative incidence, followed in order by the Sinhalese and Malays, while the Tamils and Moors both had relatively very low rates of incidence. The Malay rate is undoubtedly higher than the returns indicate, as they have an exceptionally large number of cases ascribed to Simple Continued Fever, which has been found as a rule to be in reality Enteric Fever. The Moors and Tamils on the other hand have apparently genuinely low rates for Enteric.

(b) *Enteric Fever at the several age periods.*—(See statement 21.)—Table No. 21 shows that the number of recorded cases of Enteric Fever is less at the extremes of life, the maximum number being recorded at the 15—20 age period. There is however reason to believe that a far larger number of children suffer from this disease in a mild form than is indicated by the notifications, and it is believed that these atypical unrecognised cases are responsible for the spread of a considerable amount of infection here, either by direct contact, or through the agency of flies which acquire the infection from the children's latrines or from the abuse of premises which, in spite of all efforts to put a stop to it, is such a disgusting feature of the poorer quarters.

(c) *Local Distribution of Enteric.*—(See statement 20.)—The truest indication of the prevalence of Enteric fever in Colombo is a rate for Enteric and Simple Continued Fever combined, and the ward with much the highest combined incidence in proportion to its estimated population in 1919 was Wellevatte with 5.35 cases per 1,000. There may however be a considerable error in the estimate of the population of Wellevatte, but even allowing for under estimating in that respect, this ward appears to have had a genuinely high Enteric rate in 1919. This may to some extent be accounted for by its proximity to and the great inter-communication which goes on with the adjoining rural districts which have for many years been heavily infected with Enteric Fever.

Exclusive of the relatively non-residential wards Fort and Pettah, the lowest Enteric incidence was in San Sebastian, the explanation probably being that the relatively non-susceptible Moor and Tamil races reside chiefly in that ward. Next comes St. Paul's, which also has a large Tamil and Moor population. The incidence in the other wards of the town was remarkably evenly distributed, as the accompanying spot map indicates. There was a small local outbreak at Vihara Lane in the Wellevatte ward, in regard to which suspicion at first fell upon some wells, but information subsequently obtained indicates that there also, as in the town generally, the most probable mode of spread of the infection was by personal contact. As a precautionary measure however all the wells in Vihara Lane were treated with Permanganate of Potassium, and two stand posts were erected in the Lane, so that the residents there are now assured of a pure and convenient water supply.

(d) *Enteric Fever in relation to Rice Depôts.*—One of the most interesting points in connection with Enteric Fever in 1919, is its apparent association with the establishment of the rice depôt system, which was necessitated owing to the sudden cutting off of the Indian rice supplies, upon which the people of Colombo and indeed of Ceylon to a large extent depend.

As diagram IX. shows, Enteric fever is normally low during the months January to May (see shaded area); it then rises somewhat during the months June to August in association with the onset of the South West Monsoon and its attendant fly pest, after which it again falls to a low level during the remainder of the year.

In 1919 (see red column) the incidence of cases was entirely different from the normal, inasmuch as the number reported remained markedly low until the 3rd week in July when it suddenly rose considerably above the normal and for the most part remained exceptionally high throughout the remainder of the year. In seeking for an explanation of this abnormal increase, it became apparent that some unusual factor must have come into operation early in June. It was found that the increase of cases was not due to an infected milk or other food supply or water supply, the outbreak had none of the characteristics of epidemics caused in that way, the cases being distributed all over the town in a markedly even manner (see spot map) and, as the result of investigation, it is believed that the explanation of the abnormal increase is as follows:—

The usual chief modes of infection here have been found in the course of many years' experience to be (a) personal contact and (b) transfer of infection by flies, either from latrines or from abuse chiefly by children in the vicinity of the dwellings of the poorer classes.

Any conditions therefore which favoured either of these two modes to an abnormal extent would tend to result in due course in an increase of Enteric. Such conditions appeared with dramatic suddenness during June 1919 when as the result of the cutting down of the Indian rice supplies, the necessity suddenly arose for controlling the available supplies by the establishment of rice depôts, at which practically the whole population had to congregate in crowds. It is obvious that these closely packed crowds of people must have afforded exceptional opportunities for the transfer of infection from person to person, and that such a transfer did take place appears to be indicated by the abnormal increase which occurred in respect of not only Enteric Fever, but also of Measles. (See remarks on Measles).

Diagram IX. shows how the facts agree with this hypothesis. Thus the rice dépôt system was initiated on 10th June upon which date 13 rice dépôts were opened, to be followed at intervals by others until, by the middle of August, 62 in all of these institutions had been established throughout the town.

The first sign of abnormal increase of Enteric appeared in the registers during the week ended 19th July, *i.e.*, 5 weeks after the first dépôt was opened. On going into the records in this office, it has been found that allowing for an incubation period of 2 weeks, a further interval of commonly 16 days but sometimes as long as 5 weeks, elapses before the cases are notified. Thus the cases which were registered during the week ended 19th July, and which appear on the diagram above that date, were most probably infected during or subsequent to the week ended 14th June, *i.e.*, coincidently with the establishment of the Rice Dépôt system.

Turning now to the other usual mode of infection, *i.e.*, through the agency of flies; when, prior to the establishment of the rice dépôt system, the local stocks of rice in the caddies throughout the town began to become exhausted the poor people were for a time hard put to it to find sufficient food, and they had in consequence to more or less scramble for what they could get in the shape of rice or other forms of food. They had thus no time in which to attend to their domestic scavenging, including the conservancy of children's outdoor latrines in tenement properties, with the result that this important work was for a time absolutely neglected. The Sanitary Inspectors being at the same time all engaged at the Manning Market had to entirely suspend their domiciliary inspections, and thus the neglected state of the town was not discovered until the 3rd week of July, by which time innumerable fly breeding centres had been established all over the town. Thus factor (b) mentioned above came into operation.

In view of these facts it is thought that it is not unreasonable to conclude that the abnormal increase of Enteric Fever during the 2nd half of 1919 was associated with, and was indeed indirectly the result of the establishment of the rice dépôts, which in turn was necessitated by the cutting off of the rice supplies by the Indian authorities.

18. **Plague.**—(See statements, 22 to 26). *Cases*, 87 ; *Case Rate*, 0.32 per 1,000 ; *Deaths*, 82 ; *Death-rate*, 0.30 per 1,000 ; *Case Mortality*, 94.3 per cent. One case of Plague was reported in February, and 3 in March, but the months of January, April, May, June and July were entirely free of the disease, which is the longest Plague free interval experienced in Colombo since it first appeared in the Island in 1914. This good record was however broken in August when a case occurred at Chekku Street, which adjoins Sea Street the original starting place and subsequent chief home of Plague in Colombo. A second case occurred almost simultaneously at Dean's Road, after which there was a free interval of about a month, when cases began once more to crop up, mostly in the Pettah, 5 were reported in September, 18 in October, 34 in November, and 24 in December, making a total for the year of 87 cases, as against 70 in 1918, which latter year therefore still holds the lowest record. In addition to those recorded above 6 cases occurred during December, but their registration was delayed until January 1920, owing to the X'mas holidays. These latter cases are not included in the 1919 figures. The weekly incidence of the cases during the year, arranged by date of onset, and the corresponding weekly averages for the previous 5 years, are shown on diagram No. X. which shows the abnormally low incidence up till the end of August, and the exceptionally high incidence during October, November and December. The accompanying spot map shows how nearly the whole of the cases recorded during the year occurred in the Harbour area, of which Sea Street is the centre. As will be seen there was a sharp and strictly localised outbreak of 14 cases in an insanitary range of tenements at Pickering's Road, which began about the middle of November and was chiefly responsible for the high incidence during that month. In like manner there was a sharp outbreak in December in the Kochicadde insanitary area. The bulk of the rest of the cases occurred in the Pettah.

The distribution of rat Plague, of which 66 cases were recorded, is indicated by the green spots on the accompanying map, which shows the usual close association between the distribution of human and rat Plague.

With regard to the sudden increase of Plague during the last quarter of the year, chiefly in the Sea Street and Pettah areas, it is a significant fact that when the shortage of rice began to create acute anxiety in June, the grain merchants began ordering stocks of all sorts of other grains which on arrival were stored in their godowns and houses in the Sea Street and Pettah areas, and as has been shown it was just in these localities that the great majority of the Plague cases occurred.

The association between the storage of grain and the occurrence of Plague has long been established, and it therefore seems probable that in this case also, the storage in non-ratproof buildings in an area where vast underground highways for rats exist in the shape of old underground, untrapped, rainwater drains, some of them of great size, attracted and supported a greatly increased rat population, and so was responsible for the sudden increase of Plague. The returns of rats captured in Sea Street itself do not, it is true, indicate any such increase; but these returns are of little or no value as an indication of the rises and falls in the rat population, since a particular street may not be trapped for several weeks on end. Sea Street for example was only trapped during 2 out of the 9 weeks in May and June and in 2 out of the 4 weeks in October which latter month showed the first signs of the Plague increase.

As table 24 shows, the highest rate of incidence occurred, as usual, amongst young adults, 27 per cent of the victims being between the ages of 20 and 25, while 43.6 per cent were between the ages of 20 and 30. A large proportion of the patients were described as "well nourished." The remarkable manner in which Plague practically confines its depredations to grain storage areas and insanitary tenement areas was as usual very marked.

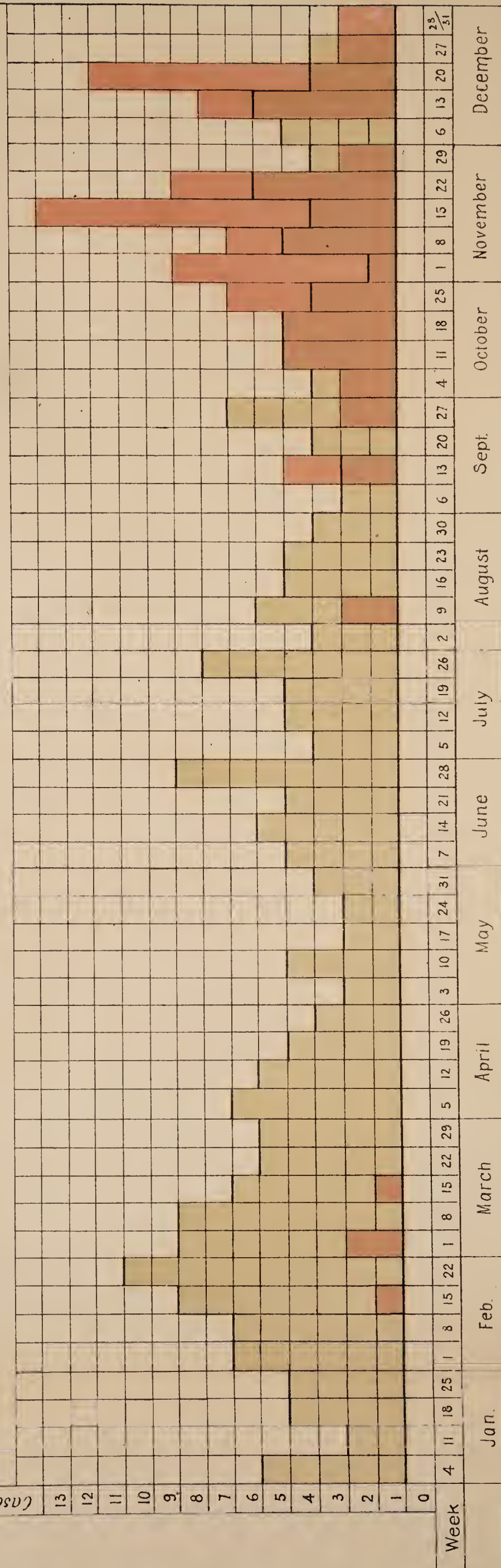
The high proportion of Septicæmic cases, *viz.*: 57.4 per cent as against 58 per cent in 1918, and the high total case mortality, *viz.*: 94.3 as against the average of 94.4 during the years 1914 to 1918 shows that there has been no material reduction in the virulence of the bacillus. So far as one has seen recorded, no other place in the world has such a high proportion of Septicæmic cases.

PLAQUE (ASES (by date of onset))

Shaded dark Average. 1914 - 1918

Red

1919



SPOT MAP III. PLAGUE CASES IN 1919 COLOMBO

(Red ●)
(Human)
(Green ●)
(Rat)

Scale in Chains
0 10 20 30 40 50



REFERENCE TO WARDS

No.	Name	Area
1	FORT	237
2	PETTAH	129
3	ST. ANDREW'S	121
4	ST. PAUL'S	157
5	KOTAHENA	1716
6	NEW BAZAAR	289
7	MARADANA	1778
8	SLAVE ISLAND	322
9	KOLLEPITIYA	1465
10	WELLAWATTA	2061
	COLOMBO LAKE	317
	TOTAL	8587

19. **Rat Plague.**—(See statements 27 and 28).—108,338 rats were caught, while only 8 are recorded as having been found dead in the town during the year by the Rat Destruction Staff employed under the Veterinary Surgeon. In addition to these, 6,794 rats were killed in holes, drains, &c., in infected areas by the Clayton Fumigator employed by the Public Health Department. In addition to those mentioned, the Clayton staff of the Public Health Department found in houses, &c., in the infected areas, 196 rats recently dead, and 130 mummified rats which had apparently died of Plague. The mummified rats were all found in or in close proximity to infected houses. 21,739 rats were examined microscopically at the Municipal Laboratory, 66 or 0.30 per cent of which were found to be infected as against 0.29 per cent found infected in 1918.

20. **Cholera.**—No cases of Cholera occurred in the town during the year 1919, but 10 cases were admitted to the Infectious Diseases Hospital from the Port, and 1 from outside the town.

21. **Smallpox and Vaccination.**—Three widely separated cases of Smallpox occurred in the town during May. The infection in 2 of the cases was proved to have been acquired in India. The source of the infection in the third case was not traced, but it was almost certainly connected with the first of the two Indian cases as the dates fitted in exactly. For particulars of vaccinations performed see statement No. 29 in the appendix.

22. **Measles.** (See statement 10). *Cases*, 405. *Deaths*, 9.—Measles is by no means the harmless disease which these figures indicate. It is said to kill in England more than twice as many as Enteric Fever, fully half more than Diphtheria, and about 20 times as many as Smallpox, and although, owing to the more favourable climatic condition here, it is not so dangerous as in England, it nevertheless is without doubt responsible for a considerably higher mortality than the death returns show. The cause of most of the deaths properly attributable to it is not its own high fatality, as it is not *per se* a very fatal disease, but the complications which are liable to accompany it and the sequelae which tend to develop during convalescence. Chief amongst the complications is Pneumonia which, be it noted, is one of the two principal causes of deaths in Colombo. There is also a special liability to tuberculous invasion during convalescence from Measles (Osler), and Pulmonary Tuberculosis is the other principal cause of deaths in Colombo.

Measles is therefore a more important disease than is generally believed, and as it behaved in an abnormal manner in 1919 it has been gone into at some length here.

Measles is one of the most difficult, if not indeed quite the most difficult of the infectious diseases to control, for the reason that it is not only one of the most acutely infectious of diseases but it is most highly infectious before eruption appears, so that before the true nature of the disease is recognised the spread of infection has usually been accomplished.

The records of the previous 12 years 1907–1918, prior to which notification of this disease was incomplete, show that Measles has recurred here in epidemic form at intervals of about $2\frac{1}{2}$ to 3 years, the intervening years being comparatively free. This same cyclical character in the matter of Measles Epidemics has been observed in other countries. Thus for example Levy and Foster observed that in Richmond, *Va.*, epidemics recurred at intervals of three years, and they were thus able to successfully predict an epidemic. The recorded epidemics in Colombo prior to 1919 occurred in 1908/9, 1912/13, and 1916/17, the shortest non-epidemic period being $2\frac{1}{2}$ years, so that another epidemic was not really due here until the middle of 1920 or the beginning of 1921. The likelihood of at least the usual minimum non-epidemic period of $2\frac{1}{2}$ years being experienced was moreover increased by the fact that the last epidemic, which did not cease until the end of 1917, was the biggest on record, and it was reasonable to suppose that the great amount of immunity thus acquired would carry us through until at least the middle of 1920. Notwithstanding all this however the disease broke out again in severe epidemic form in July 1919, *i.e.*, after an epidemic free interval of only $1\frac{1}{2}$ years. It was thus at least a year ahead of its proper time.

A further point of interest about this invasion is that whereas the records for previous years show that the number of cases usually increases during the first quarter of the year to a maximum in April and then declines during the rest of the year, the reverse held good in 1919, the increase beginning in July and reaching a maximum in December. (See statement below.)

The most probable explanation of this premature visitation appears to lie in the extremely abnormal conditions which arose as the result of the sudden failure of the Indian rice supplies; It is at all events a significant fact that, just as has been recorded in the case of Enteric fever, allowing an incubation period of two weeks and some delay for notification, the appearance of this epidemic of Measles coincided exactly in point of time with the establishment in June of the system of rice depôts, and their attendant closely crowded queues of people.

In this connection a problem which naturally presents itself is the following. Chickenpox is, so far as the records here show, bound by no rule for its appearances in epidemic form. It may apparently swell into an epidemic at any time. The disease is moreover not only endemic here but is highly infectious, and the rice depôt queues appear at first sight to afford the same facilities for its spread and development into an epidemic as in the case of Measles. It however showed no tendency to do so. Does this discount the explanation given above in regard to the outbreak of Measles? It is thought not, for the following reasons.

In the first place the age incidence of Measles and Chickenpox respectively, in Colombo, is entirely different, for as the table below shows Measles attacks chiefly young children under ten years of age, whereas the attacks of Chickenpox were confined in 1919 mainly to young adults between the ages of 20 and 30; in the second place, Measles is most highly infectious in the catarrhal stage before the eruption appears, whereas Chickenpox is very little, if at all, infectious in the pre-eruptive stage; thirdly Chickenpox has a vesicular eruption which is strikingly visible on the darkest skin, whereas the non-vesicular eruption of Measles may easily be overlooked and the case may be regarded as merely an ordinary cold.

A consideration of these points makes it plain that the chances of an adult in the infectious stage of Chickenpox, *i.e.*, with a vesicular eruption on him, exposing himself to public view and thus risking certain detection in a crowded rice dépôt queue, are very small indeed, whereas many an infant in arms and young child while in the highly infectious pre-eruptive stage of Measles has without doubt mingled in such crowds, without even the parents being aware that they were suffering from this disease and exposing others to infection. It is believed that therein lies the explanation of the different behaviour of Measles and Chickenpox in 1919. The epidemic of Measles thus affords one more illustration of the far reaching effect of the rice famine of 1919 which was brought about by the cutting down of supplies from India.

Age Incidence of Measles and Chickenpox in 1919.

Age.	Measles cases.	Chickenpox cases.
0—5	122	24
5—10	138	23
10—15	73	45
15—20	35	56
20—25	12	85
25—30	13	96
30—35	3	67
35—40	2	47
40—50	1	33
50—60	0	9
60 & Over	0	10
Total ...	*399	495

*N. B.—This total represents—compared with the normal—an epidemic of Measles. whereas the Chickenpox total does not.

Monthly incidence of Measles.

Period.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Average.												
1907-1918	37	40	56	57	47	38	28	26	30	30	28	31
1919	0	3	3	10	13	8	26	38	45	51	90	112

23. **Rabies or Hydrophobia**—*Deaths*, 6, as compared with a like number in 1917, and 5 in 1918.—30 cases of Rabies amongst dogs are known to have occurred during the year; but the Municipal Veterinary Surgeon is of opinion that this probably does not represent nearly the actual number, as many infected dogs die of the disease or are killed without the true nature of their illness being recognised and reported.

24. **Anchylostomiasis or Hookworm**.—*Deaths*, 141, as compared with 93 in 1917, and 105 in 1918.—Attention was drawn in the 1917, Annual Report to the small number of deaths of Colombo residents ascribed to Hookworm, while it was at the same time pointed out that the absence of compulsory notification rendered it impossible to ascertain the actual prevalence or distribution of the disease here.

By a resolution of the Sanitation Committee of 24th February 1919 it was decided to consult Dr. Perrin Norris, Associate Director for the East of the International Board of Health, in regard to what steps should be taken in this matter, and accordingly acting with Dr. Norris's advice, a special investigation was undertaken during the year by the Public Health Department, assisted by officers kindly lent by the Government Sanitary Department who carried out the great majority of the microscopical examinations, and the details of the investigation were submitted in Report No. 385 of 12th November 1919.

The results of this investigation were briefly as follows:—Material collected from 1,602 persons including 1,276 people at their homes in the several wards of the town, 246 children at 2 of the largest schools, and 80 patients selected at random in the non-paying wards of the †General Hospital, was examined microscopically. Care was taken throughout to avoid special selection of cases, the object aimed at being to obtain a collection of samples which should be, as far as possible, representative of the general population of the town. The result of the microscopic examinations was that 43 per cent of the people examined at their homes, 48 per cent of the school children, and 76 per cent of the Hospital patients were found to be infected. The result of a physical examination of the infected cases showed however that a very large proportion, *viz* :—91.5 per cent showed no apparent signs of the disease the infestation in their case being presumably very slight, while the remaining 8.5 per cent showed distinct signs of the disease. The infection was found to occur in every part of the town.

The general conclusion arrived at was that the infection, although for the most part slight in degree, is so widespread that no measure is likely to have any radical effect in stamping it out here, short of (a) paving of all surfaces which are specially liable to faecal pollution, which is as far as possible being done already, and (b) the complete substitution of water closets for dry-earth latrines, a sanitary need which for financial reasons is progressing exceedingly slowly. Large numbers of leaflets in English and the vernacular which were supplied by Government have been distributed throughout the town, while arrangements have, at the time of writing, been completed for a series of popular lectures in Sinhalese, illustrated by lantern slides, to be delivered by Mr. John Perera of the Government Sanitation Department kindly lent for this purpose by the Senior Sanitary Officer.

†N. B.—The Hospital examinations were carried out by Dr. Thornton the Medical Superintendent, who very kindly undertook this work himself.

Since the report referred to above was submitted, the whole question of prevention of Hookworm appears to be much complicated by the recent finding, at the Madampitiya Treatment Works, of enormous numbers of live, active Hookworm larvae, in settlement-tank sludge which had been deposited in trenches at least 2 years previously, and which it is definitely known has not since been disturbed nor reinfected. With such extraordinary vitality it is difficult to see how this disease can be stamped out in a large town like Colombo; but it can of course be enormously reduced in places like tea and rubber estates where the infection is so heavy that the efficiency of the labour forces is seriously interfered with.

25. Malaria in Colombo.—*Deaths*, 49, as against 43 in 1918.—So far as the records in this Department go, authenticated cases of Malaria *acquired in Colombo*, have occurred on only two occasions during the last 18 years. The first occasion was in 1904 when a severe local outbreak occurred at Mutwal, the source of which was definitely traced by this Department to the Government quarry near the Fishery Harbour, where large numbers of *M. Culicifacies*, the chief Malaria carrier in the north and probably in other parts of the Island, were found breeding. That outbreak promptly ceased on oiling and filling up the pools in the quarry.

The second occasion occurred during the year now under review when a single case of Malignant Malaria, the parasites of which were verified by Dr. Grenier, occurred at Maitland Crescent in the Cinnamon Gardens. On this occasion also *M. Culicifacies* were found breeding in a swampy grass field adjoining the house of the patient a young Sinhalese boy, who had not been out of Colombo since he was born. The stagnant water both in this grassfield and in a wide area around, was treated with oil, and no further case has since occurred.

In connection with the two instances quoted above it is interesting that Major James records that he never found *M. Culicifacies* in Colombo in the course of his mosquito survey of the town which lasted a year. This shows that this dangerous species of mosquito must be only a very occasional visitor here, which is highly fortunate. With a view of ascertaining whether Malarial infection was being acquired in other parts of Colombo, the Medical Officers of the Dispensaries were asked to make careful enquiries in regard to the place of infection of every case which came under their treatment. The result was that out of a total of 226 cases so investigated, 218 or 96 per cent gave a definite history of having been infected while residing in other parts of the Island, while the remaining 8 cases said they had been resident in Colombo at the time of infection. As regards the cases infected elsewhere than in Colombo the following are the chief places where Malaria was said to have been acquired :—

Place of Infection.			No. of Cases.
Kurunegalle	...	...	41
Chilaw	...	...	25
Anuradhapura	...	...	21
Kelaniya	...	...	21
Puttalam	...	...	16

The other cases investigated gave places of infection in 43 different parts of the Island, and India. As regards the 8 cases in which the infection was said by the patients to have been acquired in Colombo, 6 were assigned to the northern end of the town, and 2 to Maradana. It seems very doubtful however whether the infection was really acquired where stated.

Taking all the above facts into consideration it may, it is thought, be fairly confidently asserted that except for very rare instances, occurring at intervals of many years, Colombo has so far been and is now a Malaria free town.

26. Intestinal Parasites.—*Deaths*, 220.—This is more than double the number of deaths attributed to this cause during 1918, and suggests increased lack of care on the part of parents in the matter of the cleanliness of their children and of their children's food. This may be accounted for by the abnormal conditions which arose in connection with the food supplies whereby parents had to spend much of their time waiting about at rice depôts or seeking other forms of food, their children being thus left to take care of themselves.

27. Puerperal Septicæmia.—*Deaths*, 52 as compared with 80 in each of the years 1917 and 1918. It remains to be seen whether the improvement recorded in 1919 will be maintained. The contemplated legislation for the registration of midwives should, when given effect to, materially assist in the reduction of this cause of mortality which is chiefly due to unskilled handling during confinement.

28. Tetanus.—*Deaths*, 59 as compared with 63 in 1917, and 67 in 1918.—17 or 29 per cent of these deaths were cases of tetanus neonatorum, *i.e.*, they occurred within 2 weeks of birth; these, like Puerperal Septicæmia, are the result of unskilled midwifery, and should be benefitted by the proposed legislation requiring registration of midwives.

29. Beri-beri.—No cases of Beri-beri occurred in Colombo during the year, the one death registered having been landed from a ship in the Harbour. This is interesting in view of the foolish scare which was raised in connection with the importation of Bangkok rice by the Government of Ceylon.

PART II. ADMINISTRATION.

30. **General Sanitary Work 1919.**—The routine sanitary work of the town was much interfered with, from the beginning of June onwards, on account of the rice troubles, the Sanitary Inspectors being employed first in connection with the work at the Manning Market, then in connection with the rice supplies to rice kaddies and eating houses, and later in preparing rice cards for the use of house-holders at the depôts. A great deal of general sanitary work was nevertheless accomplished, as a comparison between Statement 25 and the corresponding statement of 1918 shows. Thus there was an increase in the number of inspections made, from 55,032 in 1918 to 59,067 in 1919; and there was a large increase in the number of premises cleansed, lime-washed, disinfected and claytonised; while the number of rat-holes fumigated and filled up rose from 24,532 in 1918 to 49,217 in 1919.

During the period that the Sanitary Inspectors were engaged wholly in connection with rice work, *i.e.*, from early in June until about the middle of July, the poor quarters of the town, but especially the tenement areas fell into a dangerous filthy condition owing to the householders themselves being at the same time engrossed in trying to secure their necessary food supplies, and thus neglecting their domestic sanitation. To remedy this, three emergency gangs, each with an overseer and six coolies, were engaged on 18th July, to clean up the worse parts of the town. One gang worked until 22nd October, and the other two until 31st October. See section 31.

A branch of work which suffered severely during the year was the structural improvement of insanitary dwellings. Thus, whereas in 1918 a total of 333 premises including 2,280 dwellings, *i.e.*, tenements, were surveyed, condemned and plans called for with a view to effecting improvements, in 1919 only 8 premises including 92 dwellings were so dealt with. Not only had the staff no time to attend to this work but it was felt that it would be inadvisable to, in any way, increase the anxieties of an already rather distracted people, by requiring them to undertake or to allow their landlords to undertake improvements to their houses which in most cases would have had to be vacated, at least temporarily, while the improvements were going on.

The following is a list of the various out door gangs employed by the Public Health Department:—

- (a) *Cleansing and pesterining.*—One overseer and six coolies, working as required under the Ward Inspectors in their respective Wards.
- (b) *Claytonising.*—Six petrol driven and 3 hand driven machines. One overseer. Nine mason coolies for rat hole filling, &c. Four rat hunting, machine driving coolies for each working machine, these coolies being lent as required by the Works Engineer, while one overseer and two coolies borrowed from the Mosquito Gang are also used as required on Clayton work.
- (c) *Mosquito Brigade.*—Six overseers, each with 2 coolies, of which one overseer and 2 coolies are lent as required to the Claytonising gang.
- (d) *Disinfecting gang.*—Thirteen coolies working under the Sanitary Inspectors as required. One of these coolies is now permanently attached to the Ambulance for infectious diseases.

For further details in regard to general sanitary work, reference may be made to Statements 30 to 40 in the appendix.

31. **Disinfection, Limewashing, Cleansing, Pesterining and Claytonising.**—(See statements 30 to 32).—1,637 dwellings were disinfected during the year, while 110 loads including 3,784 articles of clothing, &c., were passed through the Equifex Steam Disinfector; 672 premises were pesterined, while 10,044 premises, including 49,217 rat holes were fumigated by means of the Clayton machines; 81 dwellings were untiled and retiled in connection with Plague. 1,030 limewashing and cleansing notices were served and 7,147 dwellings were limewashed; 3,764 premises were scavenged by the Public Health Department, of which 1,630 were scavenged by the 3 emergency gangs engaged during July to October.

32. **Insect Pest Prevention.**—(See statement 33).—During the year 1919 a total of 1,164 tenements and 1919 other premises were examined for mosquito breeding places, with the result that 69,518 potential, and 6,659 actual breeding places were found and dealt with. The question of obtaining legislation with a view to preventing the breeding of mosquitoes and flies was again brought up during the year, and it is understood that Government now propose to introduce legislation for this purpose. With Enteric fever, dysentery and diarrhoea endemic here it has frequently been urged that legislation is required in the interests of Public Health, with a view to the prevention of fly-breeding within the town. The proposal has however so far not met with favour, but it undoubtedly will in course of time, when these matters are better understood.

33. (a) **Municipal Public Latrines and Bathing Places.**—At the end of 1919 there were 29 Municipal Public Latrines in the town, 28 of which are on the water carriage system and connected to the sewers, while one, at Wellawatte Road, although built with a view to connection to the sewer on completion of the southern pumping station, was opened temporarily as a bucket latrine. The total accommodation provided in these latrines includes 308 squatting places for men, and 137 for women. In addition 23 of the latrines have shower bathing places with accommodation for 143 men and 64 women. These Municipal Public Latrines and Bathing Places have proved a great boon to the public and are much appreciated as shown by the enormous numbers of people who use them. They moreover very materially reduce the accumulation in and transport of ordure from the insanitary dry-earth latrines in the town, while they also relieve a large number of people of the necessity for bathing in grossly polluted water such as the Lake, shallow wells, canals, &c. These latrines and bathing places cannot fail therefore to have a very beneficial effect upon the health of the town. An extension of this system is being steadily carried out by the City Sanitation Engineer.

(b) **Privately owned—Public Bathing Places.**—In addition to the Municipal Bathing Places, in which only the town pipe water is used, there are 141 privately owned bathing wells in the town where a charge is made by the owner for use by the public. The water in many of these wells is grossly polluted, and unfit for use; but until there is a more plentiful supply of Municipal Bathing Places it has not been thought advisable to close them, as the people might thus be driven to using the still more dangerously polluted waters of the Lake, canals, &c. It is however intended to make a commencement presently by closing the worst of them, with a view to which the water in each well will in due course be analysed.

34. **Cesspits in Colombo.**—During the year an enumeration of all the existing cesspits in Colombo was made, with the result shown in the statement below. That there should be 580 Cesspits in Colombo, 17 years after the Mansergh drainage works were commenced cannot be regarded as a satisfactory state of affairs; but it is no use attempting to close the cesspits until one is in a position to enforce in their place the installation of Water Closets, the cost of which is at present prohibitive.

Cesspits in Colombo in 1919.

Fort	...	...	—
Pettah	...	...	1
San Sebastian	...	...	161
St. Paul's	...	..	118
Kotahena North	...	...	28
Kotahena South	...	...	51
New Bazaar	...	...	98
Maradana North	...	...	78
Maradana South	...	...	5
Slave Island	...	...	1
Kollupitiya East	...	...	11
Kollupitiya West	...	...	—
Eastward Extension	...	...	7
Wellawatte Extension.	...	...	21
Total			580

35. **Food Supplies and Increased Cost of Living.**—The policy of restriction of exports of rice and other foodstuffs which was adopted by the Government of India, on account of the failure of the 1918 monsoon, had a very serious effect upon Ceylon. The imports of rice which normally amount to about 30,000 tons per month, fell suddenly during May 1919, to 13,550 tons, while during the whole month of June only 7,256 tons, or about a week's normal supply, were received, and the Island was for a time seriously threatened with famine. Food Control in Ceylon was initiated on 9th May, and when it became necessary, early in June, to organise a system of control and distribution of rice within the town of Colombo, the Mayor was appointed Deputy Food Controller for the Municipal area, while I was appointed on 9th June, Deputy Food Controller for the Manning Markets through which practically all the retail trade in imported rice passes, a post which I held for four months. I was assisted in this very arduous task by practically the whole of the Public Health Department head quarter's staff, and later by Mr. W. Geddes who kindly volunteered his services and was appointed Assistant Deputy Food Controller. After four months he relieved me entirely of this work and was appointed Deputy Food Controller in my place.

I am indebted to the Superintendent Rice Distribution Department, for the following information :—

On the 10th June the sale of rice to the public on a system of householder ration cards, at depôts, was started in the town, with the opening, on that date, of 13 depôts, followed at intervals by others until, by the middle of August 62 of these establishments had been opened, while a further two were opened in October, making a total of 64 opened during the year.

The organisation of the rice dépôt card system undoubtedly saved a very critical situation, and it is a noteworthy fact that, as pointed out elsewhere in this report, notwithstanding the numerous trials and privations to which the people were necessarily subjected from about the end of May onwards, the general health of the population remained remarkably good, the death-rate for the third quarter of the year being as a matter of fact, with the single exception of 1917, the lowest third quarters death-rate ever recorded in Colombo. From this it would appear that the compulsory moderation in the matter of rice eating, which the shortage and control entailed, had a beneficial effect upon the health of the people generally. A similar result has been recorded in other countries where food control has been established, provided the food shortage has not reached the stage of causing starvation, which has certainly not been experienced so far in Colombo as the following shows. The medical profession are, beyond question, the best judges of whether a person has or has not died of starvation, and as the cause of every death is certified by a medical man, the death returns may be regarded as the truest indication of the prevalence or otherwise of starvation. The following statement which speaks for itself, shows the number of deaths ascribed by the medical profession, to starvation during each of the last eight years.

Deaths registered in Colombo as due to Starvation 1912 to 1919.

Year.	Deaths from starvation.		
1912	19
1913	13
1914	6
1915	1
1916	2
1917	0
1918	3
1919	5

Recently upon reading an article in the daily papers to the effect that the wards of the General Hospital were overflowing with the victims of starvation, I visited the Hospital and in company with the Medical Superintendent examined every one of the several hundred patients in the non-paying wards. The result was that except for one old Indian Tamil Cooly who was admitted with chronic diarrhœa, and who said he had no friends nor relatives in Ceylon, I did not see a single case which by any stretch of imagination could be described as a case of starvation. In like manner I have visited every part of the poorest quarters of the town, but have failed to find evidence of starvation. The fact of the matter is that the proper meaning of the word starvation, as it is employed in Europe, India and elsewhere where starvation actually does occur, does not appear to be understood here. What the people here have been and are suffering from is privation, not starvation. This is as might be expected in what is, without doubt, one of the most fertile spots on the face of the earth. That the people here have suffered and are suffering great anxiety and inconvenience and a good deal of privation, as the result chiefly of the greatly increased cost of living generally including an abnormal rise in rents, is a matter of common knowledge; but when one reads in the daily press that the dead body of "a well nourished man," found in the town, "is another instance of those unfortunates who are expatiating with their lives the high price of rice" it is time to call a halt. The "well-nourished" person referred to in the article in question is, as a matter of fact, known to have died of Plague, a large proportion of the victims from which disease are, as has frequently been recorded, "well nourished."

Although, but for the disturbing effect on the general death-rate of the two waves of Influenza which occurred in May-June and November-December, the health of the population remained remarkably good during a very trying year, it is interesting from an epidemiological point of view to observe that the daily crowding together of the people which was entailed by the introduction of the rice dépôt system, was apparently responsible for an abnormal increase in the amount of Enteric fever and Measles, while the shortage of rice induced merchants to import large quantities of grain other than rice, which they stored chiefly in their non-rat-proof buildings in the Pettah and thereby no doubt attracted and maintained an exceptionally large population of rats with the result that an abnormally large number of cases of Plague occurred in the Pettah during the second half of the year; the total number of deaths however during the whole year, from Plague, Enteric and Measles combined was only 358, so that notwithstanding the increased prevalence of these diseases during the second half of the year, the general death-rate remained well below the normal, except when Influenza intervened.

Rise in Price of Food Stuff.—The following statement shows in comparative form the price of the various articles of food before the war, and at the present time respectively, from which it will be seen that the cost of foodstuffs has gone up very seriously since 1914.

A. RISE IN PRICE OF FOODSTUFFS, &c. 1914—1920.

				PRICE IN 1914.	PRESENT PRICE MARCH, 1920.	PERCENTAGE INCREASE.
RICE.				Cts.	Cts.	Cts.
Muttusamba	No. 1	per measure	...	18	not available	—
Do	No. 2	do	...	16	do	—
Do	No. 3	do.	...	15	do	—
Raw Rice	No. 1	do	...	13	per measure	36 177
Do	No. 2	do	...	12	not available	—
Sulai		do	...	15	do	—
Milchard		do	...	15	per measure	38 153
Bola Kalunda		do	...	15	do	38 153
Sinne Kalunda		do	...	14	not available	—
Kara		do	...	14	do	—
Table Rice	No. 1	do	...	24	do	—
Do	No. 2	do	...	22	per measure	50 127
OTHER GRAIN.						
Dhal		per measure	...	18	per measure	27 50
Dhal (Thoram)		do	...	16	not available	—
Dhal (Mysore)		do	...	15	do	—
Gram		do	...	16	per measure	29 81
Green Peas		do	...	14	do	25 78
BEEF, &c.						
Beef		per pound	...	25	per pound	30 20
Mutton		do	...	50	do	70 40
Fish		do	...	Variable	—	—
CURRY-STUFFS.						
Coriander		per pound	...	18	per pound	20 11
Dillseed		per measure	...	15	per measure	20 33
Dry chillies		per pound	...	30	per pound	35 17
Garlic		do	...	20	do	63 214
Maduru		do	...	44	do	30 decrease 32
Mustard		per measure	...	18	per measure	46 155
Pepper		per pound	...	50	per pound	59 18
Saffron		do	...	16	do	23 44
Suduru		do	...	60	do	44 decrease 27
Dry-fish		do	...	40	do	50 25
Dry-prawns		do	...	20	do	25 25
Halmassan		do	...	20	do	30 50
Kumbalawas		each	...	01½	each	02½ 67
VEGETABLES.						
Ash plantains		each	...	01½	each	02 to 03 33 to 100
Ash pumpkins		do	...	30 to 50	do	60 to 1/50 20 to 200
Bandakkas		do	...	00½	do	01 100
Beans		per 100	...	05 to 06	per 100	10 to 12 67 to 100
Breadfruit		each	...	04 to 08	each	15 to 25 88 to 212
Brinjals		do	...	01 to 02	do	03 50
Cucumber		do	...	02 to 04	do	05 to 06 25 to 50
Drumsticks		do	...	01 to 02	do	02 to 03 50
Jak		do	...	12 to 36	do	75 to 1/50 108 to 316
Red pumpkin		do	...	30 to 50	do	60 to 1/50 20 to 200
Snake gourd		do	...	04 to 06	do	08 to 10 33 to 67
Yams		per pound	...	02 to 04	per pound	06 to 08 50 to 100
MISCELLANEOUS.						
Bombay onions		per pound	...	10	per pound	10 —
Bread		do	...	16	do	18 12
Bulk oil		per bottle	...	14	per bottle	18 28
Condensed milk (Milkmaid)		per tin	...	38	per tin	72 89
Do do (Swiss)		per tin	...	25	do	65 160
Cocoanut		each	...	08	each	16 100
Cocoanut oil		per measure	...	36	per measure	80 122
Eggs		each	...	05	each	07 40
Flour		per pound	...	10 to 12	per pound	18 to 20 66
Firewood		per bundle	...	03	per bundle	05 66
Hopper		two for	...	01½	each	01½ 100
Maldivé fish		per pound	...	80	per pound	56 decrease 30
Match boxes		each	...	01½	each	02 to 03 33 to 100
Potatoes		per pound	...	12	per pound	20 66
Red onions		do	...	06	do	10 66
Salt		per measure	...	10	per measure	12 20
Sugar		per pound	...	12	per pound	34 183

B.—INCREASE IN COST OF LIVING IN COLOMBO. 1914—1920.**A.**

A Sinhalese man in Colombo, feeding at Eating Houses.

			Present Prices.		Prices in 1914.	
			cts.	cts.	cts.	cts.
MORNING cup of tea	...	...	03	...	03	
Yellow rice, pittu or bread	...	...	06	...	03	
				09		06
BREAKFAST rice and curry with fish or beef and two	}	...	25—	...	12—	
vegetables			35		15	
				30		13½
AFTERNOON cup of tea	...	...	...	03	...	03
DINNER rice and curry with fish or beef and two	}	...	25—	...	12—	
vegetables			35		15	
				30		13½
Total per day		...		72		36

100 % increase.

B.

A Cochin man in Colombo, clubbing together and feeding at home.

			Present Prices.		Prices in 1914.	
			cts.	cts.	cts.	cts.
MORNING tea	...	...	15	...	12	
BREAKFAST and DINNER	...	...	40	...	20	
Cooking wages	...	...	03	...	03	
Total per day	...	...	58		35	

65 % increase.

C.

A married man with wife and 2 children, living in the Central Wards.

			Present Prices.		Prices in 1914.	
			cts.	cts.	cts.	cts.
MORNING tea, 4 cups tea at 2 cts. each...	...	...	08	...	08	
4 hoppers at 1½ cts. each	...	...	06	...	06	
			14		14	
BREAKFAST ¼ measure of rice	...	...	28½	...	12	
½ a cocoanut	...	...	08	...	04	
Vegetables	...	...	03	...	03	
Fish, beef or dry fish	...	...	12	...	12	
Firewood and currysuffs	...	...	10	...	08	
			61½		39	
DINNER ¾ measure of rice	...	...	28½	...	12	
½ a cocoanut	...	...	08	...	04	
Vegetables	...	...	03	...	03	
Firewood and currysuffs	...	...	10	...	08	
			49½		27	
Kerosine oil	...	...	04	...	03	
Total per day	...	...	1 29		83	

55 % increase.

N.B.—The cost to such a family living in the outskirts, *e.g.*, Modera, East Extension and Wellawatte is given at Rs. 1'36, the difference being due to Kaddie prices being higher in the outer wards to cover transport.

To take a few of the principal articles of diet, the cost has increased 153 per cent for parboiled rice, and 127 per cent to 177, according to quality, for Raw rice; Flour has increased 66 per cent, Bread 12 per cent, Beef 20 per cent, Mutton 40 per cent, Dry-fish 25 per cent, Eggs 40 per cent, Salt 20 per cent, Sugar 183 per cent, Potatoes 66 per cent, Fire-wood 66 per cent and Vegetables from 20 to 316 per cent according to the articles.

36. **Increase in Rents. 1914-1920.**—The following table which is the result of careful enquiries by the Sanitary Inspectors in all the wards of the town, shows the great rise in rents which has taken place since and before the war.

C. INCREASE IN HOUSE RENT IN COLOMBO. 1914—1920.

WARD.	ONE ROOM TENEMENT.					TWO ROOM TENEMENT.					THREE ROOM TENEMENT.					HOUSE OF SLIGHTLY BETTER CLASS.								
	1914 Rent.	Average.	Present Rent.	Average.	Percentage Increase.	1914 Rent.	Average.	Present Rent.	Average.	Percentage Increase.	1914 Rent.	Average.	Present Rent.	Average.	Percentage Increase.	1914 Rent.	Average.	Present Rent.	Average.	Percentage Increase.				
Fort	1'50—4'50	2'60	2'50—5'50	3'50	0'90	34	3'50—6'00	4'25	4'00—8'00	5'55	1'30	30	4'00—10'00	7'08	4'50—12'00	8'95	1'87	26	10'00—12'50	10'62	15'00—18'00	16'50	1'32	55
Pettah	3'00—8'00	4'81	4'00—9'00	5'75	0'94	19	10'00—14'00	12'00	11'00—15'00	13'00	1'00	8	14'00—	14'00	15'00—	15'00	1'00	7	20'00—25'00	22'50	25'00—30'00	27'50	5'00	22
San Sebastian	3'50—5'00	4'16	4'50—6'00	5'16	1'00	24	4'00—5'00	4'70	6'00—8'00	7'30	2'60	55	8'00—10'00	9'33	12'00—15'00	13'16	3'83	41	13'00—15'00	14'00	17'50—25'00	21'25	7'25	51
St. Paul's	3'50—5'00	4'25	4'00—6'00	5'00	0'75	18	5'50—8'00	6'50	6'50—10'00	8'16	1'66	25	10'00—12'00	11'25	12'00—15'00	13'50	2'25	20	15'00—17'50	16'25	20'00—22'50	21'25	5'00	31
Kotahena North	0'75—3'50	1'75	1'00—4'00	2'44	0'69	39	2'50—7'00	4'69	4'00—8'00	5'81	1'12	24	6'00—8'00	7'00	7'50—10'00	8'75	1'75	25	15'00—	15'00	20'00—	20'00	5'00	33
Kotahena South	2'00—3'00	2'50	2'50—3'50	3'00	0'50	20	4'50—5'00	4'75	5'50—6'50	6'00	1'25	26	6'00—7'00	6'50	8'00—8'50	8'37	1'87	29	12'50—15'00	13'75	15'00—17'50	16'25	2'50	18
New Bazaar	1'50—2'00	1'75	2'50—3'00	2'75	1'00	57	3'00—4'00	3'50	5'00—5'50	5'25	1'75	50	6'00—7'00	6'50	8'00—8'50	8'25	1'75	27	12'00—15'00	13'50	17'50—20'00	18'75	5'25	39
Maradana North	2'00—3'50	2'60	2'50—4'50	3'40	0'80	51	4'00—6'00	5'00	5'00—8'00	6'43	1'43	29	7'00—10'00	8'00	8'00—12'00	9'90	1'90	24	10'00—15'00	12'20	15'00—18'50	15'80	3'60	29
Maradana South	2'00—3'00	2'50	2'50—3'50	3'00	0'50	20	4'00—6'00	5'00	5'00—8'00	6'40	1'40	28	8'00—10'00	8'60	9'00—12'00	10'80	2'20	26	10'00—15'00	12'34	11'00—20'00	15'46	3'12	25
Slave Island	2'00—2'50	2'25	3'00—3'50	3'25	1'00	44	3'00—6'00	4'33	5'00—8'00	6'33	1'00	46	7'50—8'00	7'75	10'00—11'00	10'50	2'75	36	15'00—	15'00	17'50—18'00	17'75	2'75	18
Colpetty East	3'00—4'50	4'17	4'00—6'00	5'17	1'00	24	3'00—7'00	5'00	5'00—12'00	7'62	2'62	52	5'00—10'00	7'50	12'50—15'00	13'75	6'25	83	10'00—17'50	13'17	20'00—30'00	24'17	11'00	84
Colpetty West	2'50—3'00	2'75	4'50—	4'50	1'75	63	3'00—5'00	4'00	3'50—7'00	5'25	1'25	31	7'50—9'00	8'25	10'00—12'00	11'00	2'75	33	15'00—17'50	16'25	25'00—30'00	27'50	11'25	69
Eastward Extension	1'50—3'00	2'25	2'00—4'00	3'12½	0'87½	39	4'00—5'50	4'75	6'00—7'50	6'75	2'00	42	5'50—7'50	6'37½	7'50—9'50	8'37½	2'00	31	10'00—17'50	13'75	15'00—22'50	18'75	5'00	36
Wellawatte	2'50—3'00	2'75	4'00—	4'00	1'25	45	5'00—6'00	5'50	7'50—10'00	8'75	3'25	59	6'00—12'50	9'25	12'00—17'50	14'75	5'50	59	15'00—20'00	17'50	20'00—30'00	25'00	7'50	43
Average	...	2'93	...	3'86	...	32%	...	5'28	...	7'04	...	33%	...	8'38	...	11'07	...	32%	...	14'70	...	20'42	...	39%

D. PRICE OF CLOTHING.

	Price in 1914.		Average.	Present Price 1920.		Average.	Increase 1914—1920.	Percentage Increase 1914—1920.
	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	
Banians (Gauze) each ...	20—	80	50	60—1	75	1 17	67	134
Banians (cloth) each ...	30—	36	33	60—	75	67	34	103
Shirts (cloth) each ...	62—		62	1 25—		1 25	63	101
Chintz per yard ...	20—	40	30	70—1	25	97	67	223
Grey cloth per yard ...	18—	60	39	55—1	25	90	51	131
Long cloth per yard ...	20—	60	40	55—1	75	1 15	75	187
Sarongs (Linen) each ...	55—	87	71	1 12—2	00	1 56	85	120
Sarongs (Palay carta) each ...	2 00—3	00	2 50	3 00—5	50	4 25	1 75	70
Camboys each ...	87—2	50	1 69	2 00—5	50	3 75	2 06	122
Vateys each ...	75—1	00	87	1 25—1	75	1 50	63	72
Belts each ...	45—	50	47	80—		80	33	70
Cannanore (Colombo) per yard...	50—	60	55	80—		80	25	45
Cannanore (Madras) per yard ...	75—		75	1 25—		1 25	50	67
Towels each ...	50—1	25	87	80—2	25	1 52	65	80
Drill per yard ...	28—	30	28	90—		90	61	210
Coats each ...	2 00—		2 00	4 00—		4 00	2 00	100
Handkerchief each ...	22—	25	23	50—	70	60	39	160

As statement C. shows the average increase in rents in Colombo, has gone up since the war broke out in 1914, by 32 to 33 per cent for tenement houses in which the great majority of the working classes live, and by 39 per cent for small houses in which the higher paid mechanics and such like live. This increase in rents has a very important bearing upon the public health, inasmuch as it has undoubtedly led to greatly increased overcrowding, especially in the tenement class of dwelling. This in turn has had a deleterious effect upon the health of the people, especially upon the health of the infants who, as is well known, are the most susceptible to unfavourable hygienic conditions, and it is not surprising therefore to find, as has been pointed out elsewhere that the infant mortality after steadily falling during a period of 14 years, as the result of improved sanitary conditions in the town, has been rising during the last three years, as the result partly of the lack of proper nourishment for the child bearing women and their infants, and partly as the result of the unhygienic conditions which are associated with overcrowding.

The question of housing has thus become a matter of vital and pressing importance in Colombo.

37. Registered Trades.—(See statement 35.)

38. Dairies and Milk Supply.—Two of the principal difficulties which are now met with in connection with Dairies, are the prevention of overcrowding of the sheds with animals, and the disposal of the cattle shed drainage. So many nuisances have arisen, as the result of improper means of drainage disposal from cattle sheds, that it has been found necessary to make connection to the sewer, where such exists, a condition to the granting of new dairy licenses, and where no sewer exists to refuse license, unless in localities where, as in the outlying districts of the town, no nuisance is likely to arise in the near future. The difficulty about these outlying dairies is that they are generally established on properties which are also eminently suitable for residential purposes, and in course of time residences spring up there and the locality then becomes unsuitable for the carrying on of dairy work. When this occurs these dairies must be shifted, as land suitable for residential purposes being already far too scarce, the private interests of individual dairymen cannot be allowed to interfere with the provision of more housing accommodation. A striking example of this class of case is the two dairies situated at Bagatelle Road where when license was first granted in 1908, it was practically in the country, whereas now it is in the heart of one of the finest residential quarters of the town and has in consequence become a frequently recurring source of nuisance and complaint. Another difficulty in connection with dairies is the detection and suppression of illicit dairy work, the chief obstacle being that many householders, who ought to know better, persist in taking the supplies from and so encouraging these unlicensed cowmen. Needless to say an illicit dairy cannot be kept under official supervision, and experience has shown that there is no abomination of which the ordinary cowman is incapable, so long as he believes he will not be detected and punished. No fewer than 110 unregistered milk vendors were convicted of selling milk during the year, while 5 cow owners were convicted of conducting unregistered dairy businesses. 338 samples of milk were taken during the year, of which 80 or 23 per cent were found to be adulterated, as against 16 per cent during 1918. The slightest relaxation of vigilance on the part of the Inspectors, such as unavoidably took place during the rice troubles, is at once taken advantage of by the dairymen to adulterate their milk.

39. Bakeries and Bread Supply.—Owing to the shortage of rice, there was an unusual demand for bread, and consequently for new Bakery licenses during the year. 9 new businesses were established and 4 bakeries were discontinued, leaving a nett increase of 5 new bakeries at the end of the year. The fixing of maximum prices for flour, led to a considerable amount of underweight selling, and neglect to stamp each loaf as required by law. 8 convictions were obtained on this account.

40. Eating Houses.—The introduction of food control and the rationing of rice, necessitated the adoption of a card system upon which licensed eating house keepers, draw their rice required for trade purposes. Eating houses were divided into two classes, *viz.*—“A” or large eating houses in which the normal consumption of rice was 2 or more bags of rice per week, and “B,” or small eating houses in which the normal consumption was less than 2 bags per week. The system has worked very satisfactorily. The demand for meals being great a large number of applications were received for new eating house licenses, but had to be refused owing to the scarcity of rice.

41. **Laundries.**—The question of establishing Municipal dhoby khana, with a view of abolishing washing in the Lake and other contaminated waters, was again under consideration and sites, after a personal visit by His Excellency the Governor, were approved.

42. **Offensive Trades.**—The question of reserving certain areas for the carrying on of offensive trades, which was referred to in the 1917 Annual Report, has since been merged with the wider one of reserving special building areas for residences, trades, &c., and has been under the consideration of a Special Committee during the year 1919. The whole question is closely associated with the still wider one of town planning which also is now under consideration.

43. **Markets.**—The question of increasing the number of Public Markets, on the lines referred to in the 1917 Annual Report, was again under consideration during the year, the chief difficulty being the lack of funds.

44. **Slaughter House.**—(See statement 36).—There was an increase in the number of animals slaughtered in 1919 compared with 1918, the increase being 232 in the case of cattle (including buffaloes) 12,408 in the case of sheep and goats, and 701 in the case of pigs. The chief requirements in regard to the Slaughter House are connection of the slaughter shed drains to the sewer, and the crow proofing of the sheds.

45. **Cemeteries.**—Further progress was made in the improvement of the Liveramentu Cemetery during the year. A portion of the Cemetery was allotted for the exclusive burial of Roman Catholics and was consecrated in February 1919. The boundaries of the Church of England portion of the Cemetery were altered with the consent of the trustees so as to give them a more compact area, and to facilitate the development of the General Cemetery on regular lines. The lack of funds prevented anything being done in the matter of establishing a Cemetery at Wellawatte, which is becoming yearly more necessary.

46. **Municipal Enteric Hospital.**—This Hospital was opened for the treatment of only non-paying patients, on January 15th, 1909.

Buildings.—Four wards each with 12 beds. The wards which have cemented floors, 4 feet high walls and cadjan roofs, are lofty, cool, shady and comfortable. One ward is used as quarters for the attendants and other servants, as the 2 ranges of 3 rooms each which were originally provided for that purpose fell down during the 1913 floods, and owing to the want of funds, have not since been replaced. The present arrangement is unsatisfactory. Another ward was lent to the Military Authorities in 1916 for the segregation of contacts amongst troops passing through here. This ward has been improved and maintained at the expense of the Military, who are still in possession of it. Only two wards are thus available for the use of the patients, and fortunately this has so far proved sufficient. A range of 3 small rooms serves as office and dispensary combined, general store, and kitchen. A range of 2 bedrooms and a dining room is provided for the nursing staff. The other buildings are, a servants latrine, a flyproof latrine-bucket store, a single room for the dhoby work, and a small mortuary. The buildings have been well maintained during the year.

Staff.—The staff at present consists of one part-time Medical Officer (Dr. K. K. Jacob) whose substantive post is Medical Officer of the adjacent Government Infectious Disease Hospital. One apothecary who also acts as overseer of the Segregation Camp and occupies the Camp bungalow at Kanatte Road, one matron-nurse, 2 male and 2 female attendants, one ayah, one orderly, one cook, one dhoby, and two latrine coolies.

Patients.—During the year 1919, 84 patients were admitted, of whom 16 were found to be suffering from diseases other than Enteric. Of the 68 cases of Enteric 44 were cured and discharged, 15 or 22.4 per cent died, as against 25.9 per cent in 1918, and 9 remained under treatment at the end of the year. Of the 68 cases of Enteric admitted, 44 or 65 per cent were sent in from the poor quarters of the town, by the Sanitary Inspectors, on account of home isolation being unsatisfactory, 17 cases were received from other Hospitals, and 3 sought admission voluntarily.

47. **Segregation Camp.**—This is one of those so called temporary institutions, which was erected by Government about 20 years ago, in anticipation of the advent of Plague. It is beautifully situated and consists of a number of ranges of cadjan rooms with earth floors, kitchens, bath-rooms, and latrines and has proved exceedingly useful for the segregation of contacts, not only of Plague, but also of Smallpox, Cholera, &c.

During the year 1919, 510 Plague contacts, 20 Cholera contacts from outside the town, and 13 Smallpox contacts, making a total of 543, segregated.

48. **Municipal Dispensaries.**—(See statements 37—40).—At the commencement of the year 1919 there were two Municipal Free Dispensaries, one opened in Slave Island Ward on 1st February, 1910, and the other in St. Paul's Ward on 1st July, 1914.

Three new dispensaries were sanctioned by the Council during the year, one for Maradana, another for Wellawatte, and a third for Modera. The Maradana one was opened at Demetagoda on 1st November, 1919, but the establishment of the Wellawatte and Modera ones had not been accomplished at the end of the year.

As a notice in English, Sinhalese and Tamil posted up at each dispensary shows, these institutions are intended for the treatment of only the very poorest of the people, who cannot afford to pay even the smallest medical fee. They thus serve an exceedingly useful purpose and are much appreciated by the poor people as shown by the fact that 37,358 sick people sought treatment during the year. Some idea of the great relief thus afforded may be obtained from the following which represents a few of the principal diseases and ailments which were treated during the year:—Worms, 5,220 cases, including 109 cases of Hookworm; Bronchitis and Bronchial Asthma, 4,115 cases; Ulcer, 3,255 cases; Influenza, 2,835 cases; Constipation, 2,723 cases; Rheumatism and Rheumatic Affections, 2,372 cases; Malaria, 1,415 cases; Dyspepsia, 802 cases; Colic, 700 cases. But for the facilities for treatment free of charge which the Municipal Dispensaries afford, the great majority of these and many other cases would probably have gone without treatment at all, and many of them would no doubt have gone from bad to worse and ultimately helped to swell the death roll of the town.

In view of the embarrassed financial position of the Council, the Medical Officers have instructions to observe the greatest economy in the use of drugs, &c, and to treat only such persons as appear to be genuinely indigent. No case which may properly be dealt with at any of the Government Hospitals or Institutions is on any account to be treated at the Municipal Dispensaries.

23rd March, 1920.

WM. MARSHALL PHILIP, M.B., C.M., D.P.H.
Medical Officer of Health.

Annexure (A)

From the MUNICIPAL BACTERIOLOGIST, COLOMBO, to the MEDICAL OFFICER
OF HEALTH, COLOMBO.

Colombo, 25th February, 1920.

SIR,

I have the honour to submit the following tabular report on the work of the Municipal Bacteriological Laboratory during the year 1919. I personally was absent throughout the year on War service.

The only special enquiry carried on was in connection with the suspected contamination of the Colombo Water supply by flood water entering the air-valves of the main pipe during floods. The results obtained are distinctly in favour of such pollution having occurred.

Further series of tests will be required to definitely settle the question.

Only a minimum amount of routine work has been done.

It will not be possible to fulfil all the requirements of a modern Public Health Bacteriological Laboratory without a considerable increase in the annual sum now allotted to maintenance and equipment.

Not only the cost of Laboratory materials, but the scope of bacteriology as applied to sanitation, has greatly increased in recent years.

I am, &c.,

L. F. HIRST,

Bacteriologist.

SUMMARY OF WORK DONE IN THE MUNICIPAL BACTERIOLOGICAL LABORATORY DURING, 1919.

	PATHOLOGICAL SPECIMENS.			TOWN WATER.			RATS.			TOTAL.		
	† No. of Specimens received.	Separate tests applied.	No. Samples.	Separate tests applied.	No. Examined.	Separate tests applied.						
January	122	125	12	96	1557	3114	1691	3335				
February	182	188	16	128	1741	3482	1939	3798				
March	283	285	16	128	2396	4792	2695	5205				
April	217	598	16	128	1500	3000	1733	3726				
May	107	111	16	128	1609	3218	1732	3457				
June	67	191	16	128	1709	3418	1804	3833				
			12*	96*								
July	40	97	16	128	1691	3382	1747	3607				
August	41	90	16	128	1757	3514	1826	3780				
			12*	48*								
September	116	255	16	128	1856	3712	1988	4095				
October	65	140	16	128	2020	4040	2101	4308				
November	57	121	16	128	2298	4740	2371	4989				
December	53	130	16	128	1601	3202	1670	3460				
TOTAL	1350	2331	212	1648	21735	43614	23297	47593				

* Labugama water.—Special examinations on orders of Chairman.

† 1. Specimens include, Finger blood for widal's reaction.

2. Faeces and urine for isolation of B. Typhosus, B. Paratyphosus, A. & B. and most of the former for Hookworm ova.

3. Spleens and lungs for B. Pestis.

4. Goats, sheep's ears for B. anthracis.

Annexure (B)

From the CITY ANALYST, COLOMBO, to the MEDICAL OFFICER
OF HEALTH, COLOMBO.

Colombo, 8th January, 1920.

ANNUAL REPORT.

SIR,

I have the honour to submit my yearly report for the year 1919. Samples examined were as follows:—

	No. of Samples.		No. of Samples.
<i>January.</i>		<i>September.</i>	
Milk ...	36	Milk ...	27
Town water ...	14	Town water ...	14
Well water ...	1	Well water ...	1
Bread ...	1		
<i>February.</i>		<i>October.</i>	
Milk ...	38	Milk ...	31
Town water ...	14	Town water ...	15
Well water ...	3		
Sewage ...	6	<i>November.</i>	
<i>March.</i>		Milk ...	28
Milk ...	43	Town water ...	16
Town water ...	14	Well water ...	2
Well water ...	1	<i>December.</i>	
<i>April.</i>		Milk ...	44
Milk ...	22	Town water ...	14
Town water ...	14	Well water ...	2
Well water ...	1	Coral Lime ...	1
<i>May.</i>		Deposit on Chimney of Refuse Destructer ...	1
Milk ...	35	Biltong ...	1
Town water ...	15		
<i>June.</i>		Total ...	535
Milk ...	1		
Town water ...	12	Condemned. Suspicious.	
Bran Bread ...	1	<i>Total No. of Milks.</i>	
<i>July.</i>		338 ... 80 ... Nil.	
From Waterworks Engineer, waters ...	3	<i>Total No. of Town waters.</i>	
Milk ...	2	167 ... Nil. ... Nil.	
Town water ...	15	<i>Total No. of Well waters.</i>	
<i>August.</i>		11 ... 4 .. 7	
From the Waterworks Engi- neer, water ...	1	<i>Miscellaneous.</i>	
Milk ...	31	11	
Town water ...	14		

The City Analytical work has been carried on during the year with great difficulty due to the scarcity of apparatus and chemicals, the long delay in getting these after order, and delivery often unsatisfactory.

Twenty three per cent of the milks examined were found to be adulterated with added water.

To bring imported milks in line with local milks and give fairness to the local milk vendor, it has been suggested that the label round the container of imported milks should have directions in English, Sinhalese and Tamil, as regards dilution, so that on following the directions the milk should have the composition of standard Colombo Milk. Skimmed milk should be labelled as unsuitable for infants. As the neighbouring countries India, China, Straits, etc., have legislated for condensed milk, Ceylon must follow their example or be made the dumping ground for inferior condensed milks.

Eleven Well waters were examined of which 4 were condemned and 7 marked suspicious and which will be examined again.

167 Town water were examined all of which passed as pure potable water.

In the month of May the city water supply developed a peculiar iodoform flavour which was traced to the use of acid ferric alum (used to form an artificial skin on the filters) on the lining of the settling tank, which had been freshly applied and consisted of a layer of, first Colombo Coal Tar, and then hot bitumen. The taste lasted only a few days. The use of acid ferric alum as a skin former has been stopped.

A series of tests were carried out on the action of Colombo water on lead pipes. From the tests made and the appearance of old lead pipes it is considered dangerous to the interests of public health to use lead pipes in connections where the water is used for human consumption.

Efforts will be made to combat the growth of *Crenothrix* by the addition of burnt lime to the city supply before it passes through the filters. It is hoped to demonstrate in 5-12 months the beneficial effect of the addition of lime in reducing the main cleaning bill. The addition of lime may also make the use of lead pipes safe as it is hoped the plumbic solvency of the water will be decreased. But this must first be proved by experiment.

I am, &c.,

A. BRUCE.

STATEMENTS.

No. 1.—(a) Average Monthly Mean Temperature at Colombo Observatory (C. G.)

Years.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
	°	°	°	°	°	°	°	°	°	°	°	°	°
12	79.0	79.8	81.4	82.8	82.4	81.6	81.1	81.0	80.9	80.2	79.6	79.0	80.7

(b) Monthly Mean Temperature at Colombo Observatory during 1919.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
	°	°	°	°	°	°	°	°	°	°	°	°	°
1919	80.5	81.6	81.6	83.0	82.2	81.9	81.0	80.2	79.8	80.8	79.6	79.4	81.0

(c) Average Monthly Mean Pressure at Colombo Observatory (C. G.) Altitude 24 feet above Mean Sea Level.

Years.	Jan. in.	Feb. in.	Mar. in.	April. in.	May. in.	June. in.	July. in.	Aug. in.	Sept. in.	Oct. in.	Nov. in.	Dec. in.	Year. in.
10-11	29.913	29.904	29.888	29.853	29.831	29.831	29.845	29.857	29.866	29.880	29.872	29.891	29.869

(d) Monthly Mean Pressure at Colombo Observatory (C. G.) during 1919.

Year.	Jan. in.	Feb. in.	Mar. in.	April. in.	May. in.	June. in.	July. in.	Aug. in.	Sept. in.	Oct. in.	Nov. in.	Dec. in.	Year. in.
1919	29.934	29.934	29.931	29.858	29.842	29.848	29.850	29.908	29.882	29.904	29.865	29.884	29.887

(e) Average Monthly Rainfall at Colombo Observatory (C. G.) and Colombo Fort.

Station.	Years.	Jan. in.	Feb. in.	Mar. in.	April. in.	May. in.	June. in.	July. in.	Aug. in.	Sept. in.	Oct. in.	Nov. in.	Dec. in.	Year. in.
Col : Observatory ...	12	3.29	1.83	4.14	7.07	13.13	7.31	6.11	2.78	5.56	13.34	10.77	4.71	80.04
Colombo Fort ...	50	3.31	1.96	4.35	9.59	11.05	7.22	4.49	3.21	4.81	13.62	11.71	5.15	80.47

(f) Monthly Rainfall at Colombo Observatory Cinnamon Gardens and Colombo Fort, during 1919. Observatory Gauge 25 feet and Fort 70 feet above Mean Sea level.

Station.	Year.	Jan. in.	Feb. in.	Mar. in.	April. in.	May. in.	June. in.	July. in.	Aug. in.	Sept. in.	Oct. in.	Nov. in.	Dec. in.	Year. in.
Col : Observatory ...	1919	4.33	0.34	3.36	5.96	20.01	3.59	4.26	4.47	16.74	12.47	8.89	9.28	93.70
Colombo Fort ...	1919	2.90	0.07	2.62	5.80	14.62	2.62	1.93	2.15	14.24	9.86	8.87	8.13	73.81

(g) Average Monthly Mean Humidity at Colombo Observatory (C. G.)

Years.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
	%	%	%	%	%	%	%	%	%	%	%	%	%
11	76	76	78	79	81	81	80	80	80	83	82	79	80

(h) Monthly Mean Humidity at Colombo Observatory during 1919.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
	%	%	%	%	%	%	%	%	%	%	%	%	%
1919	78	76	77	80	82	82	80	84	84	82	82	80	81

With reference to the rainfall at Fort it should be noted that this Gauge is not only higher above Sea Level but higher above adjacent ground level and for this its readings might be expected to be less than those of a Gauge at or near ground level. The difference between it and the readings at the Observatory is thus not purely a climatic one but largely a matter of the exposure of the two Gauges.

The Observatory Gauge should be taken as the standard.

No. 2.—POPULATION.

Race.			Population estimated to middle of 1919
All races	...	...	271,616
Europeans	...	...	3,795
Burghers	...	...	17,812
Sinhalese	...	...	121,848
Tamils	...	...	65,797
Moors	...	...	47,854
Malays	...	...	6,750
Others	...	...	7,760

No. 3.—AREA AND ESTIMATED POPULATION BY WARDS, 1919.

Ward.	Total area (in acres.)	Nett available area (in acres.)	Estimated population.	Density per acre of available area.
Fort	220	112	4,345	38.8
Pettah	92	67	9,856	147.1
San Sebastian	116	108	14,281	132.2
St. Paul's	143	135	30,598	226.6
Kotahena	1,649	1,056	50,174	47.5
New Bazaar	289	226	27,596	122.1
Maradana	1,297	1,025	54,117	52.8
Slave Island	313	304	27,199	89.5
Kollupitiya	1,928	1,655	30,974	18.7
Eastward Extension	1,593	1,593	13,504	8.5
Wellawatte Extension	620	620	8,972	14.5
The Lake	416	—	—	—
Colombo Town	8,676	6,901	271,616	38.9

No. 4.—BIRTHS. RACIAL BIRTH-RATES.

Race.	Average rate per 1,000, population, 1909—1918.	Births 1919.	Birth-rate per 1,000 population, 1919.
All races	23.1	5,907	21.7
Europeans	22.5	65	17.1
Burghers	32.2	467	26.2
Sinhalese	29.0	3,396	27.9
Tamils	12.4	797	12.1
Moors	19.3	841	17.6
Malays	35.6	216	32.0
Others	14.0	125	16.1

No. 5.—WARD BIRTH-RATES.

Ward.	Average rate per 1,000 population, 1909—1918.	Births 1919.	Birth-rate per 1,000 population, 1919.
Colombo	23.1	5,907	21.7
Fort	2.2	11	2.5
Pettah	4.7	35	3.6
San Sebastian	18.6	227	15.9
St. Paul's	15.5	412	13.5
Kotahena	22.1	986	19.6
New Bazaar	21.5	470	17.0
Maradana	19.6	873	16.1
Slave Island	21.8	501	18.4
Kollupitiya	16.8	478	15.4
Eastward Extension	16.9	240	17.8
Wellawatte	25.5	207	23.1
Hospitals	—	1,467	—

No. 6.—COLOMBO WARD DEATH-RATES. (All causes.)

Death-rate per 1,000 population.

Ward.	(a) Average rate 1909 to 1918.	(b) Deaths 1919.	(c) Death-rate 1919 (Crude.)	(d) Corrected for deaths in Hospitals 1919.	(e) Corrected for deaths in Hospitals 1918.	(f) Increase or decrease 1919 as compared with 1918.
Colombo	28.2	7823	28.8	25.2	25.0	+ .2
Fort	9.0	43	9.9	11.0	7.8	+ 3.2
Pettah	9.3	76	7.7	16.9	11.8	+ 5.1
San Sebastian	21.1	272	19.0	21.3	21.8	— .5
St. Paul's	21.5	609	19.9	23.0	23.3	— .3
Kotahena	22.1	1104	22.0	25.8	25.0	+ .8
New Bazaar	24.3	545	19.7	24.8	27.3	— 2.5
Maradana	21.5	1118	20.7	26.8	25.9	+ .9
Slave Island	21.2	583	21.4	25.3	25.3	—
Kollupitiya	15.4	540	17.4	21.4	21.7	— .3
Eastward Extension	15.1	250	18.5	23.6	23.9	— .3
Wellawatte	17.7	152	16.9	24.2	23.3	+ .9
Hospitals	—	2531	—	—	—	—

Including 966 deaths of non-residents of the town.

No 9.—Deaths of Males and Females at different age periods for each race in the Colombo Municipality during the year, 1919.

AGE AT DEATH.

RACE.	UNDER 5 YEARS.												OVER 5 YEARS.												TOTAL.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	Under 1 year of age see particulars of statement.				1 year & under 2.		2 years & under 3.		3 years & under 4.		4 years & under 5.		5 years & under 10.		10 years & under 15.		15 years & under 20.		20 years & under 25.		25 years & under 35.		35 years & under 45.		45 years & under 55.		55 years & under 65.		65 years & under 75.		75 years & under 85.		85 years & over.		Persons.	Males.	Females.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	1 year & under 2.		2 years & under 3.		3 years & under 4.		4 years & under 5.		5 years & under 10.		10 years & under 15.		15 years & under 20.		20 years & under 25.		25 years & under 35.		35 years & under 45.		45 years & under 55.		55 years & under 65.		65 years & under 75.		75 years & under 85.		85 years & over.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
	1 year & under 2.		2 years & under 3.		3 years & under 4.		4 years & under 5.		5 years & under 10.		10 years & under 15.		15 years & under 20.		20 years & under 25.		25 years & under 35.		35 years & under 45.		45 years & under 55.		55 years & under 65.		65 years & under 75.		75 years & under 85.		85 years & over.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Europeans	3	3	—	1	—	—	—	—	—	1	—	—	—	4	—	13	—	6	1	3	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

No. 10.—Causes of Deaths Registered in Colombo during the year, 1919.

Causes of Deaths.		Ward.												Nationality.										
		Colombo Town.	Fort & Galle Face.	Pettah.	San Sebastian.	St. Paul's.	Kotahena.	New Bazaar.	Maradana.	Slave Island.	Kollupitiya.	Eastward Extension.	Wellawatte Extension.	Hospitals.			Europeans.	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.	
														Town Residents.	Untraced.	Non-Residents.								
ALL CAUSES	...	7823	—	—	—	—	—	—	—	—	—	—	—	—	—	—	65	363	4177	1521	1159	227	311	
I. General Diseases :—																								
1. Epidemic Diseases...	1075	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14	50	506	256	166	22	61	
2. Septic Diseases ...	52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	4	30	14	3	—	—	
3. Tuberculous Diseases	726	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	36	406	147	82	13	37	
4. Venereal Diseases ...	54	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	37	7	8	1	1	
5. Cancer or Malignant Diseases	72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	7	42	15	2	1	1	
6. Other General Diseases	228	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	9	130	38	33	11	6	
II. Diseases of the Nervous System and Organs of Special Sense	744	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	37	366	140	146	26	27	
III. Diseases of the Circulatory System	167	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	15	87	27	21	8	4	
IV. Diseases of the Respiratory System	1471	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9	74	753	329	198	31	77	
V. Diseases of the Digestive System	1159	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	55	688	204	140	27	35	
VI. Non-venereal Diseases of the Genito-Urinary and Annexa	238	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	16	143	33	30	3	7	
VII. The Puerperal State	113	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	57	31	16	4	3	
VIII. Diseases of the Skin and of the Cellular Tissue	91	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	3	64	13	9	1	2	
IX. Diseases of the Bones and of the Organs of Locomotion	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	1	2	—	—	
X. Malformations	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	—	—	—	—	
XI. Diseases of Early Infaney	552	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	20	292	106	92	29	12	
XII. Old Age	478	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	19	216	69	125	32	16	
XIII. Affections produced by External Causes ;—																								
1. Suicide	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	5	—	—	1	
2. Homicide	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	1	—	—	3	
3. Judicial Hanging or Execution	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	19	1	—	—	—	
4. Accident and other External Violence	124	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	3	72	23	13	1	9	
XIV. Ill-defined Diseases	421	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	13	247	61	73	17	9	
I. GENERAL DISEASES.																								
Epidemic Diseases.																								
1. Enterie Fever	268	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	23	168	19	28	5	17	
2. Typhns Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	
3. Relapsing Fever	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	
4. { a Malaria	43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	20	10	7	1	1	
4. { b Malarial Cachexia	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	3	1	—	—	—	
5. Smallpox { a Vaeinated	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
5. Smallpox { b Not Vaccinated	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	3	
5. Smallpox { c Doubtful	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6. Measles	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	—	2	1	—	
7. Searlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
8. Whooping Cough	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	3	1	—	1	—	
9. { a Diphtheria	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	1	1	—	—	
9. { b Membranous Laryngitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9. { c Croup	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
10. Influenza	121	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	14	166	130	80	8	22	
11. Miliary Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
12. Asiatic Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
13. Cholera Nostras	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
14. { a Amoebic Dysentery	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
14. { b Bacillary Dysentery	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
14. { c Dysentery (type not distinguished)	222	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	9	120	52	23	5	11	
15. Plague	78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	40	23	—	5	
16. Yellow Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
17. Leprosy	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	
18. Erysipelas	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2	—	1	—	—	
19. { a Mumps	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	
19. { b Varicella (Chickenpox)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
19. { c Other Epidemic Diseases...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
20. { a Pyaemia	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	2	—	—	—	
20. { b Septicæmia	42	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	4	22	12	3	—	—	
20. { c Vaecinia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
21. Glanders	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
22. Anthrax	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
23. Rabies, Hydrophobia	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	3	—	—	—	
24. Tetanus	59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	31	12	10	1	4	
25. Mucosæ	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
26. Pellagra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
27. Beri-Beri	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	

Causes of Deaths, &c.,—*contd.*

Causes of Deaths.		Colombo Town.	Ward.											Nationality.												
			Fort & Galle Face.	Pettah	San Sebastian.	St. Paul's	Kotahena.	New Bazaar.	Maradana.	Slave Island.	Kollupitiya.	Eastward Extension.	Wellawatte Extension.	Hospitals.			Europeans	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.			
														Town Residents.	Untraced.	Non-Residents										
ALL CAUSES		...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis Diseases.	28. { a Acute Pulmonary Tuberculosis	...	697	—	—	—	—	—	—	—	—	—	—	—	—	—	3	33	390	145	78	13	35			
	28. { b Chronic Pulmonary Tuberculosis	...	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	1	—	—			
	29. Acute Miliary Tuberculosis	...	5	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2	—	1	—	—			
	30. Tuberculous Meningitis.	...	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	1			
	31. Abdominal Tuberculosis	...	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—			
	32. Tuberculosis of the Spine	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	33. Tuberculosis of Joints.	...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—			
	34. Tuberculosis of other Organs (Lymphatism excepted)	...	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	7	1	1	—	—			
	35. Disseminated Tuberculosis	...	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	1	—	—			
	36. Rickets	...	92	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	53	15	13	7	—			
37. Syphilis	...	54	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	37	7	8	1	1				
37a. Parangi (Framboesia Tropicum, Yaws)	...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—			
38. Gonococcus Infection	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Cancer or Malignant Diseases.	39. Cancer and other malignant Tumours of the Buccal Cavity	...	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9	3	—	—	—			
	40. Cancer and other malignant Tumours of the Stomach, Liver	...	11	—	—	—	—	—	—	—	—	—	—	—	—	—	1	3	4	—	1	1	1			
	41. Cancer and other malignant Tumours of the Peritoneum, Intestines, Rectum	...	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1	2	—	—	—			
	42. Cancer and other malignant Tumours of the Female Genital Organs	...	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	5	1	—	—	—			
	43. Cancer and other malignant Tumours of the Breast	...	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	1	—	—			
	44. Cancer and other malignant Tumours of the Skin	...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—			
	45. Cancer and other malignant Tumours of other Organs or of Organs not specified	...	31	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	19	9	—	—	—			
	46. Other Tumours (Tumours of the Female Genital Organs excepted)	...	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	1	—	—			
	47. Acute Rheumatic Fever	...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	48. { a Rheumatoid Arthritis	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
48. { b Osteo-Arthritis	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	3	—	—				
48. { c Chronic Rheumatism	...	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
48. { d Gout	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
49. Scurvy	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
50. Diabetes (Mellitus)	...	32	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2	25	1	2	1	—				
51. Exophthalmic Goitre	...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—				
52. Addison's Disease	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
53. { a Leucocythæmia	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
53. { b Lymphadenoma	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	7	4	7	1	1				
54. { a Anæmia	...	21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
54. { b Chlorosis	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
55. { a Diabetes Insipidus	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
55. { b Purpura	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
55. { c Hæmophilia	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—				
55. { d Other General Diseases	...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—				
56. Alcoholism (acute or chronic)	...	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
57. Chronic Lead Poisoning	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
58. Other Chronic Poisonings (occupational)	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
59. Other Chronic Poisonings (non-occupational)	...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—				
II. DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE.																										
60. Encephalitis	...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—			
61. { a Simple Meningitis	...	17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	9	2	1	—	1			
	61. { b Cerebro-Spinal Fever	...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—			
	61. { c Septic Meningitis from various causes	...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—			
62. Locomotor Ataxia	...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—				
63. Other Diseases of the Spinal Cord	...	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	6	2	—	—	2			

Causes of Deaths, &c.,—*contd.*

Causes of Deaths.	Colombo Town.	Ward.												Nationality.									
		Fort & Galle Face.	Pettah.	San Sebastian.	St. Paul's.	Kotahena.	New Bazaar.	Maradana.	Slave Island.	Kollupitiya.	Eastward Extension.	Wellawatte Extension.	Hospitals.			Europeans.	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.	
													Town Residents.	Untraced.	Non-Residents.								
ALL CAUSES	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
64. Cerebral Hemorrhage Apoplexy	47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	5	16	11	9	1	4	
65. Softening of the Brain	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
66. Paralysis without special cause	121	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9	71	18	18	4	1	
67. General Paralysis of the Insane	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
68. Other forms of mental alienation	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	5	3	—	1	1	
69. Epilepsy	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	3	3	—	—	
70. Convulsions (non-puerperal)	92	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	49	15	12	8	4	
71. Convulsions of Infants	418	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	199	84	101	11	13	
72. Chorea	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
73. Neuralgia and Neuritis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
74. Other Diseases of the Nervous System	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	4	2	—	—	—	
75. Diseases of the Eyes and their Annexa	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	
76. { a Mastoid Disease	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	
76. { b Other Diseases of the Ears.	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	
III. DISEASES OF THE CIRCULATORY SYSTEM.																							
77. Pericarditis	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4	2	—	1	
78. { a Simple Acute Endocarditis	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	1	
78. { b Infective Endocarditis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
79. { a Myocarditis	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	1	—	
79. { b Valvular Disease	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	1	1	1	—	
79. { c Other Organic Diseases of the Heart	84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	8	41	14	13	2	1	
80. Angina Pectoris	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	3	1	1	1	—	
81. { a Aneurism	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	1	1	1	—	
81. { b Atheroma, Arteriosclerosis.	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	
81. { c Other Diseases of the Arteries	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
82. { a Cerebral Embolism and Thrombosis	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	1	—	
82. { b Embolism and Thrombosis other than Cerebral	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	
83. { a Phlebitis	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	
83. { b Varicose Veins	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
83. { c Hemorrhoids	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	1	—	1	—	
83. { d Other Diseases of the Veins	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
84. { a Lymphatism, Status Lymphaticus	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
84. { b Elephantiasis Arabum (Filariasis)	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	
84. { c Other Diseases of the Lymphatic System	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
85. { a Hemorrhage from any part	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	7	2	1	—	1	
85. { b Other Diseases of the Circulatory System	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	5	—	1	1	—	
IV. DISEASES OF THE RESPIRATORY SYSTEM.																							
86. Diseases of the Nose	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
87. { a Laryngismus Stridulus	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
87. { b All forms of Laryngitis (Diphtheritic excepted)	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	
87. { c Other Diseases of the Larynx	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	
88. Diseases of the Thyroid Body	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
89. Acute Bronchitis	90	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	40	17	26	1	1	
90. { a Chronic Bronchitis	44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2	14	11	11	3	2	
90. { b Bronchiectasis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
91. Broncho-Pneumonia	484	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	29	274	85	62	16	15	
92. Pneumonia	751	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	38	384	184	82	10	50	
93. { a Empyema	14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	5	1	—	—	
93. { b Other Pleurisy	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	8	1	—	2	
94. Pulmonary Congestion, Pulmonary Apoplexy	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	7	8	6	—	2	
95. Gangrene of the Lungs	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	1	—	1	
96. Asthma	33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15	8	7	1	2	
97. Pulmonary Emphysema	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
98. Other Diseases of the Respiratory System (Tuberculosis excepted)	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	3	—	—	2	

Causes of Deaths, &c.,—*contd.*

[illegible]

Causes of Deaths, &c.,—*contd.*

Causes of Deaths.	Colombo Town.	Ward.												Nationality.										
		Fort & Galle Face.	Pettah.	San Sebastian.	St. Paul's.	Kotahena.	New Bazaar.	Maradana	Slave Island.	Kollupitiya.	Eastward Extension.	Wellawatte Extension.	Hospitals.			Europeans.	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.		
													Town Residents.	Untraced.	Non-Residents.									
ALL CAUSES	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
VII. THE PUERPERAL STATE																								
134.	<i>a</i> Abortion, Miscarriage ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	<i>b</i> Ante-partum Hæmorrhage ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	<i>c</i> Ectopic Gestation ...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	
	<i>d</i> Other Accidents of Pregnancy ...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	
135.	Puerperal Hæmorrhage ...	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1	—	—	—	—	
136.	Other accidents of Child-birth ...	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	3	—	—	—	1	
137.	Puerperal Septicæmia ..	52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	23	14	12	2	—	
138.	<i>a</i> Puerperal Albuminuria, Nephritis, &c. ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	<i>b</i> Puerperal Eclampsia ...	26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17	5	1	1	2	—	
139.	<i>a</i> Puerperal Phlegmasia, Alba Dolens ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	<i>b</i> Puerperal Embolism, Sudden Death, &c. ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
140.	<i>a</i> Puerperal Insanity ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	<i>b</i> Consequences of Child-birth (not otherwise defined) ...	21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	9	7	3	1	—	
141.	Puerperal Diseases of the Breast ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
VIII. DISEASES OF THE SKIN AND OF THE CELLULAR TISSUE.																								
142.	Gangrene ...	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	13	1	—	—	—	
143.	<i>a</i> Carbuncle ...	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	
	<i>b</i> Furuncle (Boil) ...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	
144.	<i>a</i> Phlegmon ...	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	—	—	1	—	
	<i>b</i> Acute Abscess, Abscess unqualified ...	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	11	3	2	—	2	
145.	<i>a</i> Ulcer, Bedsore ...	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	16	3	2	—	—	
	<i>b</i> Eczema ...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	
145.	<i>c</i> Pemphigus ...	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	
	<i>d</i> Other Diseases of the Integumentary System (Elephantiasis Arabum excepted) ...	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14	5	3	—	—	
IX. DISEASES OF THE BONES AND OF THE ORGANS OF LOCOMOTION.																								
146.	Diseases of the Bones (Tuberculosis and Mastoid Disease excepted)...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
147.	Diseases of the Joints (Tuberculosis and Rheumatism excepted) ...	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1	2	—	—	—	
148.	Amputations ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
149.	Other Diseases of the Organs of Locomotion...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	
X. MALFORMATIONS.																								
150.	<i>a</i> Congenital Hydrocephalus ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	<i>b</i> Congenital Diseases of the Heart ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	<i>c</i> Other Congenital Malformation (Stillbirths excluded) ...	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	—	—	—	—	
XI. DISEASES OF EARLY INFANCY.																								
151.	<i>a</i> Premature Birth ...	92	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	52	18	11	2	3	
	<i>b</i> Debility ...	358	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13	186	65	63	23	7	
	<i>c</i> Want of Breast Milk ...	42	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	21	8	9	2	1	
	<i>d</i> Atrophy, Icterus, Sclerema Neonatorum ...	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14	3	4	—	1	
152.	<i>a</i> Atelectasis ...	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	3	2	1	—	
	<i>b</i> Injuries at Birth ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
153.	<i>c</i> Other Diseases peculiar to early Infancy ...	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	1	2	1	—	
	Lack of care ...	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9	8	1	—	—	
XII. OLD AGE.																								
154.	Senility ...	478	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	19	216	69	125	32	16

Causes of Deaths, &c.,—contd.

Causes of Deaths.	Colombo Town.	Ward											Nationality.										
		Fort & Galle Face.	Pettah.	San Sebastian.	St. Paul's.	Kotahena.	New Bazaar.	Maradana.	Slave Island.	Kollupitiya.	Eastward Extension.	Wellawatte Extension.	Hospitals.			Europeans.	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.	
													Town Residents.	Untraced.	Non-Residents.								
ALL CAUSES	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
XIII. AFFECTIONS PRODUCED BY EXTERNAL CAUSES.																							
155. Suicide by Poison	...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
156. Suicide by Asphyxia	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
157. Suicide by Hanging or Strangulation	...	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	4	—	—	—	1
158. Suicide by Drowning	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
159. Suicide by Firearms	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
160. Suicide by Cutting or Piercing Instruments	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
161. Suicide by Jumping from high places	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
162. Suicide by Crushing	...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
163. Suicide by other means	...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
164. Poisoning by Food	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
165. { a Snake-bite	...	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—
165. { b Insect Stings (Venomous)	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
165. { c Other Acute Poisonings...	...	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2	1	—	—	—	—
166. Conflagration	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
167. Burns (Conflagration excepted)	...	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	9	3	5	1	1	—
168. Absorption of Deleterious Gases (Conflagration excepted)	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
169. Accidental Drowning	...	15	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	8	6	—	—	—	—
170. Traumatism by Firearms	...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
171. Traumatism by Cutting or Piercing Instruments	...	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—
172. { a Traumatism by Fall from trees	...	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	1	—	—	3
172. { b Traumatism by Fall from heights other than trees	...	4	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	2	—	—	—	—
172. { c Traumatism by other Accidental Fall	...	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1	2	—	—	1
173. Traumatism in Mines and Quarries	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
174. Traumatism by Machines	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
175. Traumatism by other Crushing (Vehicles, Rail-road, Landslides, &c.)	...	27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	19	5	1	—	—	2
176. Injuries by Animals	...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
177. Starvation	...	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	—	—	—	—	—
178. Excessive Cold	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
179. Effects of Heat	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
180. Lightning	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
181. Electricity (Lightning excepted)	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
182. Homicide by Firearms	...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
183. Homicide by Cutting or Piercing Instruments	...	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—
184. Homicide by other means	...	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	1	—	—	—	2
185. Fractures (cause not specified)	...	19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	12	—	4	—	—	2
186. { a Judicial Hanging or Execution	...	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	19	1	—	—	—	—
186. { b Other External Violence	...	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	4	—	—	—	—
XIV. ILL-DEFINED DISEASES.																							
187. { a Dropsy	...	14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	11	—	2	—	—
187. { b Ascites	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
187. { c Other Ill-defined Organic Disease	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
188. { a Syncope	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
188. { b Sudden Death (not otherwise defined)	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
189. { a Heart-failure	...	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	14	2	1	—	—	4
189. { b Atrophy, Debility, &c., (one year and over)	...	164	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	83	32	32	8	4
189. { c Teething	...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
189. { d Pyrexia	...	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	30	12	12	4	—
189. { e Marasmus and Asthenia	...	149	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	97	15	26	5	1
189. { f Other Ill-defined Causes	...	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	—	—	—	—
189. { g Diseases not specified	...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—

No. 11.—INFANT MORTALITY.

Infant Mortality 1919 by Wards.
Rate per 1,000 births.

Ward.	Average 1909 to 1918.	1919.	Increase or decrease.
Colombo ...	277	271	— 6
Fort ...	262	91	—171
Pettah ...	319	286	— 33
San Sebastian ...	341	379	+ 38
St. Paul's ...	381	417	+ 36
Kotahena ...	282	290	+ 8
New Bazaar ...	361	338	— 23
Maradana ...	323	330	+ 7
Slave Island ...	296	287	— 9
Kollupitiya ...	223	215	— 8
Eastward Extension...	264	342	+ 78
Wellawatte ..	209	208	— 1
Hospitals ...	156	156	—

No. 12.—INFANT MORTALITY 1919, BY RACE.

Rate per 1,000 births.

	All races.	Europeans.	Burghers.	Sinhalese	Tamils.	Moors.	Malays.	Others.
All causes ...	271	92	139	254	359	339	282	312
Premature birth ...	16	—	13	15	23	13	9	24
Atrophy & debility ...	78	15	32	73	99	100	120	80
Bronchitis ...	7	15	6	5	8	11	5	8
Pneumonia ...	31	15	28	33	35	23	32	8
Diarrhoeal ...	34	31	30	33	40	35	28	40
Convulsions ...	70	—	21	59	105	120	51	104
Tetanus ...	3	—	—	2	8	5	5	—
All other causes ...	32	16	9	34	41	32	32	48

No. 13.—INFANT MORTALITY.

Deaths at different age periods and from several causes, 1919.

CAUSE OF DEATH.	AGE.													RACE.							
	Age in Weeks.					Age in Months.								Europeans	Burghers.	Sinhalese.	Tamil.	Moors.	Malays.	Others.	All races.
	1	2	3	4	Total.	2	3	4	5	6	7-9	10-12	Total.								
<i>I. Developmental Diseases—</i>																					
1. Premature birth	80	10	—	—	90	—	—	—	—	—	2	—	2	—	6	52	18	11	2	3	92
2. Atalectasis	13	—	—	—	13	—	—	—	—	—	—	—	—	—	7	3	2	1	—	—	13
3. Atrophy and debility	156	37	30	28	251	58	36	26	21	14	36	20	211	1	15	247	79	84	26	10	462
4. Others	4	4	—	1	9	—	4	3	1	4	6	4	22	—	1	20	7	1	2	—	31
<i>II. Diseases of respiratory system</i>																					
1. Laryngitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Croup	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. Bronchitis	—	—	1	2	3	4	3	1	—	7	15	6	36	1	3	18	6	9	1	1	39
4. Pneumonia	—	3	4	2	9	12	9	19	13	10	60	49	172	1	13	112	28	19	7	1	181
5. Others	—	—	—	—	—	—	—	—	1	1	—	—	2	—	—	2	—	—	—	—	2
<i>III. Diseases of digestive system—</i>																					
1. Diarrhœal	2	1	2	6	11	21	20	25	13	14	28	25	146	1	11	90	23	22	6	4	157
2. Dentition	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	1	—	—	—	—	1
3. Others	4	2	3	4	13	7	5	2	3	4	7	2	30	1	3	21	9	8	—	1	43
<i>IV. Diseases of nervous system—</i>																					
1. Convulsions	93	42	18	21	174	53	43	27	15	22	57	27	244	—	10	199	84	101	11	13	418
2. Laryngismus stridulus	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. Tetanus	12	5	—	—	17	—	—	—	—	—	—	—	—	—	—	6	6	4	1	—	17
4. Others	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>V. Tuberculous diseases—</i>																					
1. Tabes messenterica	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Tubercular meningitis	—	—	—	—	—	1	—	—	—	1	1	—	3	—	1	2	—	—	—	—	3
3. Others	—	—	—	—	—	—	—	—	—	—	1	1	2	—	—	2	—	—	—	—	2
<i>VI. Accidents—</i>																					
1. Injury	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Umbilical hæmorrhage...	2	—	—	—	2	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	2
3. Suffocation	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1
4. Other violence	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	1	—	—	—	—	1
<i>VII. Infectious diseases—</i>																					
1. Small-pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Chicken-pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. Measles	—	—	—	—	—	—	—	—	—	1	—	—	1	—	—	1	—	—	—	—	1
4. Whooping cough	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	1	—	—	—	—	1
5. Mumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. Cerebro-spinal fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. Scarlet fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>VIII. Syphilis—</i>																					
	—	2	—	3	5	6	9	5	4	2	3	3	32	—	—	28	3	4	1	1	37
<i>IX. All other causes—</i>																					
	8	1	3	—	12	11	7	12	4	4	26	22	86	1	2	47	20	20	3	5	98
TOTAL																					
	375	107	61	67	610	173	136	120	75	84	245	160	993	6	65	861	286	285	61	39	1603

No. 14.—PRINCIPAL CAUSES OF DEATHS AT ALL AGES IN 1919.

Pneumonia	...	...	1235	} Total Pulmonary—2074.
* Phthisis	...	...	705	
Bronchitis	...	...	134	
Diarrhœa	...	...	200	} Total Diarrhœal—808.
Enteritis	...	...	386	
Dysentery	...	...	222	
* Enteric Fever	...	...	268	} Total Fevers—373.
Remittent Fever	...	...	43	
Intermittent Fever	...	...	2	
* Simple & ill-defined Fever	...	...	60	
Debility	...	...	522	
Influenza	...	...	421	
Infantile Convulsions	...	...	418	
Intestinal parasites	...	...	220	

CERTAIN MINOR CAUSES OF DEATHS.

Anchylostomiasis	...	...	...	...	141
Paralysis	...	...	...	...	121
Rickets	...	...	...	...	92
* Plague	...	...	...	...	78
Cancer	...	...	...	...	72
Tetanus	...	...	...	...	59
Syphilis	...	...	...	...	54
* Measles	...	...	...	...	9
* Diphtheria	...	...	...	...	6
* Whooping cough	...	...	...	...	6
Rabies	...	...	...	...	6
* Smallpox	...	...	...	...	5
Beriberi	...	...	...	...	1

* Those marked with an asterisk are notifiable.

No. 15.—NOTIFIABLE INFECTIOUS DISEASES, 1919.

Diseases,	January.	February,	March,	April,	May.	June.	July.	August.	September,	October,	November,	December,	Total for Colombo exclusive of Port and out-side cases.	Port.	Outside.	Grand total of cases.
Plague	—	1	3	—	—	—	—	2	5	18	34	24	87	2	—	89
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	10	1	11
Smallpox	—	—	—	—	3	—	—	—	—	—	—	—	3	17	1	21
Chickenpox	52	34	54	61	34	22	35	22	22	39	72	48	495	1	26	522
Measles	—	3	3	10	13	8	26	38	45	51	90	112	399	2	4	405
Diphtheria	1	3	—	1	1	5	—	1	—	1	—	—	13	—	4	17
Acute Diarrhœa	—	—	—	—	—	—	1	—	—	—	—	—	1	—	—	1
Enteric Fever	22	27	35	24	28	34	42	54	61	60	57	68	512	28	142	682
Continued Fever...	18	19	12	7	11	7	5	7	16	17	14	8	141	—	4	145
Phthisis	115	91	104	98	111	95	95	120	129	120	122	85	1285	5	216	1506
Total	208	178	211	201	201	171	204	244	278	306	389	345	2936	65	398	3399

No. 16.—PULMONARY DISEASES, 1919. BY RACE.
RATE PER 1,000 POPULATION.

Disease.		All Races.	Europeans.	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others
Phthisis	{ Deaths	...	705	5	35	392	145	80	35
	{ Death-rate	...	2'60	1'32	1'96	3'22	2'20	1'67	4'52
Pneumonia	{ Deaths	...	1235	6	67	658	269	144	65
	{ Death-rate	...	4'55	1'58	3'76	5'40	4'09	3'01	3'39
Bronchitis	{ Deaths	...	134	1	7	51	28	37	3
	{ Death-rate	...	49	26	39	44	43	77	39
All Pulmonary	{ Deaths	...	2074	12	109	1104	442	261	103
	{ Death-rate	...	7'61	3'16	6'11	9'06	6'72	5'45	13'30

NO. 17.—DEATH-RATES FROM PULMONARY DISEASES IN 1909, 1917, 1918
AND 1919. CALCULATED ON THE CENSUS POPULATION.

	MALES.				FEMALES.			
	1909.	1917.	1918.	1919.	1909.	1917.	1918.	1919.
Burghers ...	7.56	7.51	9.47	8.56	9.12	6.89	10.84	7.61
Sinhalese ...	11.49	7.08	12.94	11.56	11.23	8.16	14.59	11.95
Moors ...	10.26	3.89	7.65	5.71	13.19	5.72	11.87	8.79
Malays ...	9.45	6.70	11.28	7.05	15.06	9.89	15.43	9.10
All Races ...	11.39	6.19	10.46	9.35	11.96	7.69	13.75	10.55

NO. 18.—DIARRHOEAL DISEASES 1919—BY RACE,
RATE PER 1,000 POPULATION.

Diseases.		All Races.	Europeans.	Burghers.	Sinhalese.	Tamil	Moors.	Malays.	Others.
Diarrhoea & Enteritis...	Deaths	...	586	3	24	334	119	71	17
	Death-rate	...	2.16	.79	1.34	2.74	1.81	1.49	2.52
Dysentery	Deaths	...	222	2	9	120	52	23	5
	Death-rate	...	.82	.53	.51	.98	.79	.48	.74
All Diarrhoeal	Deaths	...	808	5	33	454	171	94	22
	Death-rate	...	2.98	1.32	1.85	3.72	2.60	1.97	3.26

NO. 19.—FEVERS 1919. CASES, DEATHS AND RATES
PER 1,000 POPULATION OF EACH RACE.

Diseases.		All Races	Europeans	Burghers	Sinhalese	Tamils	Moors	Malays	Others
Enteric Fever	Cases	...	682	33	22	439	42	47	16
	Case-rate	...	2.51	8.69	4.04	3.60	.64	.98	2.37
	Deaths	...	268	8	23	168	19	28	5
	Death-rate	...	.99	2.11	1.29	1.38	.29	.59	.74
Continued Fever	Cases	...	145	1	16	86	19	10	8
	Case-rate	...	.53	.26	.89	.70	.29	.21	1.18
	Deaths	...	60	—	2	30	12	12	4
	Death-rate	...	.22	—	.11	.25	.18	.25	.59
Remittent Fever	Deaths	...	43	2	2	20	10	7	1
	Death-rate	...	.16	.53	.11	.16	.15	.15	.13
Intermittent Fever	Deaths	...	2	—	—	2	—	—	—
	Death-rate	...	.01	—	—	.02	—	—	—
All Fevers	Cases	...	827	34	88	525	61	57	24
	Case-rate	...	3.04	8.95	4.93	4.30	.93	1.19	3.55
	Deaths	...	373	10	27	220	41	47	10
	Death-rate	...	1.38	2.64	1.51	1.81	.62	.99	1.48

NO. 20.—FEVERS BY WARDS 1919.

Cases and Case-rate per 1,000 population.

	Colombo.	Fort & Galle Face	Pettah.	San Sebastian.	St. Paul's	Kotahena.	New Bazaar	Maradana.	Slave Island.	Kollupitiya.	Eastward Extension.	Wellawatte.	Port.	Outside.	Untraced.
<i>Enteric Fever.</i>															
Cases ...	682	2	8	9	33	79	49	86	46	51	21	37	28	142	91
Case-rate...	2.51	.46	.81	.63	1.08	1.57	1.78	1.59	1.69	1.65	1.56	4.12	—	—	—
<i>Continued Fever.</i>															
Cases ...	145	1	1	2	9	30	9	29	16	20	3	11	—	4	10
Case-rate...	.53	.23	.10	.14	.30	.60	.33	.54	.59	.65	.22	1.23	—	—	—
<i>All Fevers.</i>															
Cases ...	827	3	9	11	42	109	58	115	62	71	24	48	28	146	101
Case-rate...	3.01	.69	.91	.77	1.38	2.17	2.11	2.13	2.28	2.30	1.78	5.35	—	—	—

No. 21.—ENTERIC CASES REPORTED DURING 1919.

Inclusive of Port and Outside cases. Distribution by Race, Age and Sex.

Race.	Sex.	0 to 5 years.	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 50	50 to 60	60 & over.	All Ages.	Total of each race.	Case rate per 1,000 popul.	Deaths.	Case Mortality per cent.	Mortality per 1,000 popul.
All races	... { M	18	45	61	91	59	73	27	35	20	8	3	440	682	2.51	268	39.3	.99
	... { F	10	32	33	29	46	26	18	21	16	8	3	242					
Europeans	... { M	—	1	—	3	5	12	—	3	5	2	—	31	33	8.69	8	24.2	2.11
	... { F	—	1	—	—	—	—	—	—	1	—	—	2					
Burghers	... { M	1	6	4	8	5	5	1	4	—	—	—	34	72	4.04	23	31.9	1.29
	... { F	1	3	2	8	7	3	1	6	5	2	—	38					
Sinhalese	... { M	14	30	39	61	32	36	16	20	12	5	2	267	439	3.60	168	38.2	1.38
	... { F	5	22	25	17	34	23	14	15	10	6	1	172					
Tamils	... { M	2	1	7	5	5	5	2	3	1	1	—	32	42	.64	19	45.2	.29
	... { F	1	3	3	—	2	—	1	—	—	—	—	10					
Moors	... { M	1	4	7	8	1	5	3	2	—	—	—	31	47	.98	28	59.6	.59
	... { F	2	3	2	3	3	—	1	—	—	—	2	16					
Malays	... { M	—	2	4	1	1	2	1	—	—	—	1	12	16	2.37	5	31.2	.74
	... { F	1	—	1	1	—	—	1	—	—	—	—	4					
Others	... { M	—	1	—	5	10	8	4	3	2	—	—	33	33	4.25	17	51.5	2.19
	... { F	—	—	—	—	—	—	—	—	—	—	—	—					

No. 22.—PLAGUE 1914 TO 1919.

	1914	1915	1916	1917	1918	1919
Total cases	413	139	291	207	70	87
Total deaths	381	128	273	196	69	82
Septicæmic cases	247	81	159	124	41	50
Septicæmic deaths	246	80	159	124	41	50
Bubonic cases	166	58	132	83	29	37
Bubonic deaths	135	48	114	72	28	32
Total case mortality %	92.2	92.8	93.8	94.7	98.6	94.3
Septicæmic case mortality %	99.6	98.7	100.0	100.0	100.0	100.0
Bubonic case mortality %	81.3	82.8	86.4	86.7	96.6	86.5

No. 23.—PLAGUE 1919. CASES REPORTED.

Monthly Incidence.

Month.	Plague cases.	Mean Temperature.	Rainfall. inches.	Mean humidity.
January	—	80.5	4.33	78
February	1	81.6	0.34	76
March	3	81.6	3.36	77
April	—	83.0	5.96	80
May	—	82.2	20.01	82
June	—	81.9	3.59	82
July	—	81.0	4.26	80
August	2	80.2	4.47	84
September	5	79.8	16.74	84
October	18	80.8	12.47	82
November	34	79.6	8.89	82
December	24	79.4	9.28	80
Total	87	81.0	93.70	81

No. 24.—PLAGUE CASES, 1919.

Rate per 1,000 living at each Age period.

Calculated on the Census Population.

Age period.				Number of Cases.				Case rate.	
0 to 5 years	...	...	...	1	...	...	...	·05	
5 years to 10 years	...	...	...	1	...	...	...	·05	
10 " " 15 "	...	...	...	11	...	...	...	·45	
15 " " 20 "	...	...	...	9	...	...	...	·38	
20 " " 25 "	...	...	...	24	...	...	...	·89	
25 " " 30 "	...	...	...	14	...	...	...	·56	
30 " " 35 "	...	...	...	9	...	...	...	·49	
35 " " 40 "	...	...	...	8	...	...	...	·57	
40 " " 50 "	...	...	...	6	...	...	...	·34	
50 " " 60 "	...	...	...	2	...	...	...	·19	
60 " & over	...	...	...	2	...	...	...	·23	
All ages				87	...	...	...	·32	
				—	—	

No. 25.—PLAGUE CASES, 1919.

Distribution by Race, Age and Sex.

Race.	Sex.	0 to 5 years.	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 50	50 to 60	60 & over.	All ages.	Total of each race.	Case rate per 1,000 populu.	Deaths.	Case Mortality per cent.	Mortality per 1,000 populu.
		0 to 5 years.	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 50	50 to 60	60 & over.	All ages.	Total of each race.	Case rate per 1,000 populu.	Deaths.	Case Mortality per cent.	Mortality per 1,000 populu.
All races...	{ M	1	1	9	9	21	14	7	8	6	1	2	79	87	·32	82	94·3	·30
	{ F	—	—	2	—	3	—	2	—	—	1	—	8					
Europeans	{ M	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	{ F	—	—	—	—	—	—	—	—	—	—	—	—					
Burghers	{ M	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	{ F	—	—	—	—	—	—	—	—	—	—	—	—					
Sinhalese	{ M	1	—	2	—	3	2	—	1	1	1	1	12	14	·12	11	78·4	·09
	{ F	—	—	—	—	1	—	1	—	—	—	—	2					
Tamils ...	{ M	—	1	4	5	8	8	6	3	2	—	1	38	43	·65	42	97·7	·64
	{ F	—	—	2	—	1	—	1	—	—	1	—	5					
Móors ...	{ M	—	—	3	3	6	2	—	4	2	—	—	20	21	·44	21	100·0	·44
	{ F	—	—	—	—	1	—	—	—	—	—	—	1					
Malays ...	{ M	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	{ F	—	—	—	—	—	—	—	—	—	—	—	—					
Others ...	{ M	—	—	—	1	4	2	1	—	1	—	—	9	9	1·17	8	88·9	1·03
	{ F	—	—	—	—	—	—	—	—	—	—	—	—					
Grand Total ...		1	1	11	9	24	14	9	8	6	2	2	87					

No. 26.—PLAGUE, 1919.

Distribution by Wards.

Ward.	Case.	Deaths.		
Fort	...	—	Bubonic.	
Pettah	...	26		
San Sebastian	...	4		
St. Paul's	...	27		Cases ... 37
Kotahena	...	21		Deaths ... 32
New Bazaar	...	2	Septicæmic.	
Maradana	...	3		
Slave Island	...	1		Cases ... 50
Kollupitiya	...	—		Deaths ... 50
Eastward Extension	...	—		
Wellawatte Extension	...	—	Case Mortality per cent.	
Vagrants & Unknown	...	3	All causes	... 94·3
			Bubonic	... 86·5
			Septicæmic	... 100·0
TOTAL	87	82		

No. 27.—Statement compiled from the monthly returns furnished by the Veterinary Surgeon showing rats trapped and found dead during 1919.

Month.	Number of trapped rats.		Number of dead rats found.		Total.
January	...	10,041	...	—	10,041
February	...	8,859	...	1	8,860
March	...	8,957	...	—	8,957
April	...	8,702	...	—	8,702
May	...	9,492	...	—	9,492
June	...	9,83	...	—	9,830
July	...	9,358	...	—	9,358
August	...	9,617	...	2	9,619
September	...	8,887	...	—	8,887
October	...	8,162	...	—	8,162
November	...	8,421	...	5	8,426
December	...	8,012	...	—	8,012
Total	...	108,338	...	8	108,346

No. 28.—MUNICIPAL BACTERIOLOGICAL LABORATORY.

Rat Examinations, 1919.

Month.	Total rats examined.		No. found infected.		Percentage infection
January	...	1,557	...	—	—
February	...	1,741	...	3	·17
March	...	2,396	...	1	·04
April	...	1,500	...	1	·07
May	...	1,609	...	1	·06
June	...	1,709	...	—	—
July	...	1,691	...	—	—
August	...	1,757	...	1	·06
September	...	1,856	...	10	·54
October	...	2,020	...	20	·99
November	...	2,298	...	19	·94
December	...	1,605	...	10	·62
Total	...	21,739	...	66	·30

No. 29.—VACCINATIONS PERFORMED DURING THE YEAR 1919.

By Government Vaccinators.

Ward.	Primary Vaccinations.		Revaccinations.		Total.
Fort, Galle Face, Pettah and San Sebastian	627	...	33	...	660
St. Paul's	911	...	—	...	911
Kotahena	1097	...	29	...	1126
New Bazaar	751	...	141	...	892
Maradana	616	...	140	...	756
Slave Island	710	...	—	...	710
Kollupitiya	743	...	90	...	833
Eastward Extension	833	...	—	...	833
Itinerating (Colombo)	289	...	—	...	289
Total	6577	...	433	...	7010

Vaccinations performed by Municipal Vaccinators.

Ward.	Primary Vaccinations.		Revaccinations.		Total.
San Sebastian	1	...	7	...	8
New Bazaar	—	...	16	...	16
Maradana	51	...	501	...	552
Kollupitiya	8	...	255	...	263
Total	60	...	779	...	839

	Nature of Work.	Fort and Galle Face.	Pettah	San Sebastian	St. Paul's	Kotahena North	Kotahena South	New Bazaar	Maradana North	Maradana South	Slave Island	Kollupitiya E.	Kollupitiya W.	Eastward Extension	Wellawatte Ext.	Total.
1	No. of inspections	4915	3616	4629	4248	6520	5505	4384	3401	3372	4389	2314	3426	5257	3091	59067
2	No. of premises in which sanitary defects were found (a)	138	207	354	356	420	386	179	371	178	206	244	224	154	228	3645
3	No. of premises in which sanitary defects were found (b)	16	94	41	65	126	52	70	145	70	67	83	92	26	58	1005
4	No. of premises where non-structural defects were rectified	135	122	332	232	293	227	139	113	114	134	235	192	110	189	2567
5	No. of premises where structural defects were rectified	16	52	25	41	69	12	32	61	42	12	2	42	7	45	458
6	No. of insanitary dwellings structurally improved	—	10	—	12	21	27	4	7	4	3	2	—	35	9	134
7	No. of buildings other than dwellings, structurally imprd.	—	23	12	35	47	13	8	23	15	48	46	22	13	27	332
8	No. of insanitary dwellings closed under Plague Regulations	—	—	9	—	—	—	2	—	21	—	—	—	—	—	32
9	No. of insanitary dwellings remaining closed at end of year	—	2	8	84	52	7	1	3	9	11	—	—	—	—	177
10	No. of insanitary dwellings demolished	—	—	—	4	—	—	2	1	24	—	—	—	1	4	36
11	No. of insanitary premises in which plans have been called for	—	—	—	2	—	—	—	4	—	1	—	—	1	—	8
12	No. of insanitary dwellings included in (11)	—	—	—	2	—	—	—	23	—	4	—	—	63	—	92
13	No. of insanitary premises in which plans have been recd.	17	2	47	9	—	17	47	111	38	60	—	6	1	—	355
14	No. of insanitary premises condemned and referred to W. E. for improvement	—	—	16	4	—	—	16	15	—	5	—	—	—	—	56
15	No. of insanitary dwellings included in (14)	—	—	76	27	—	—	159	149	—	126	—	—	—	—	537
16	No. of insanitary premises scavg. by P.H.D. cleansing gang.	3	3	13	139	504	203	80	529	319	135	—	51	40	115	2134
17	No. of dwellings pesterined	—	55	36	258	26	175	84	27	8	3	—	—	—	—	672
18	No. of dwellings claytonised	9	1735	398	4590	207	507	520	525	841	693	—	2	—	17	10044
19	No. of dwellings un-roofed	—	7	4	20	5	34	6	4	—	1	—	—	—	—	81
20	No. of rat-holes found claytonised and filled up	60	9335	1518	26390	716	2217	1667	1676	2822	2659	—	29	—	128	49217
21	No. of dwellings disinfected	53	56	53	168	147	191	163	183	117	196	72	67	55	116	1637
22	No. of dwellings linewashed	46	125	1051	1229	288	553	1176	530	847	784	25	153	153	187	7147
23	No. of wells filled up	1	—	—	—	3	1	—	1	—	—	5	5	1	4	21
24	No. of cesspits filled up	—	—	1	—	—	1	3	1	—	—	—	—	—	—	6
25	No. of notices served under Section 1. Sub-section (1) of Ordinance No 15 of 1862 (Filthy premises)	27	46	63	78	139	82	94	148	83	26	35	100	21	51	993
26	No. of notices served under Section 186 of Ordinance No. 6 of 1910 (Privy accommodation)	—	3	—	—	39	5	—	1	—	—	32	—	5	1	86
27	No. of notices served under Section 189 of Ordinance No. 6 of 1910 (Filling up of stagnant pools, &c.)	—	—	—	—	—	—	1	—	1	1	12	—	—	1	16
28	No. of notices served under Section 178 of Ordinance No. 6 of 1910 (Cleansing and Limewashing)	14	79	92	106	74	111	47	163	74	69	36	36	31	98	1030
29	No. of notices served under Section 49, Part I of Plague Regulations (closure of buildings U. H. H.)	—	—	3	—	—	—	1	—	1	—	—	—	—	—	5
30	No. of notices served under By-law 8 (1) Chapter XXII (Improvement to buildings U. H. H.)	—	—	—	4	10	1	4	1	3	—	1	—	—	4	28
31	No. of notices served under Section 38, Part I of Plague Regulations (Filling up wells)	1	—	—	—	1	1	—	—	—	—	1	2	—	—	6
32	No. of notices served under Section 39, Part I of Plague Regulations (Overcrowding)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
33	No. of prosecutions	101	156	207	162	204	208	220	191	95	82	160	133	—	—	2065
34	No. of convictions	92	129	190	147	170	179	196	131	77	79	129	107	56	90	1745
35	No. of cases acquitted, withdrawn	3	9	11	3	19	4	3	11	3	2	4	6	4	9	91
36	No. of cases pending at end of year	1	5	3	3	11	6	7	23	7	—	12	7	2	9	96
37	Amount of fines	Rs. 977·50	862·70	1474·0	1383·50	1108·50	1796·0	1992·0	1171·50	739·0	549·0	1700·0	777·0	431·0	537·0	15498·70

No. 31.—PROSECUTIONS—DETAILS.

Ordinance or By-law.				Offence.	No. of cases.	Convictions.	
Section 1	Sub-sec. 1	of Ord. 15	of 1862	... Filthy premises	... 952	... 882	
"	1	" 1	" 15	" ... Filthy dairy	... 12	... 12	
"	1	" 1	" 15	" ... Filthy laundry	... 2	... 2	
"	1	" 2	" 15	" ... Foul privy	... 6	... 5	
"	1	" 4	" 15	" ... Nuisance by cattle, swine, &c.	... 127	... 119	
"	1	" 9	" 15	" ... Selling unwholesome food	... 20	... 20	
"	1	" 11	" 15	" ... Storing offensive bones	... 1	... 1	
"	2	of Ord. 13	of 1864	... Selling unstamped bread	... 12	... 8	
"	283	" 2	of 1883	... Easing in a public drain	... 2	... 2	
"	39	" 1	of 1896	... Unregistered dairy	... 7	... 5	
"	53	Chapter 3	of Ord. 1	of 1896	... Unregistered laundry	... 34	... 31
"	110	of Ord. 6	of 1910	... Spitting in market	... 16	... 11	
"	178	" 6	"	... Failure to linewash	... 56	... 45	
"	186	" 6	"	... Neglect to provide privy accomodation	... 27	... 22	
"	189	" 6	"	... Failure to fill up abandoned well	... 1	... 0	
"	194	" 6	"	... Allowing child to commit nuisance	... 2	... 2	
"	205	" 6	"	.. Failure to report infectious diseases	... 13	... 11	
"	212	" 6	"	... Unlicensed offensive trades	... 26	... 23	
Rule 29	of Chapter VIII	By-laws		... Digging pits without permission	... 2	... 2	
"	31	" VIII	"	... Throwing rubbish on roadside	... 3	... 3	
"	4	" IX	"	... Filthy bathing well	... 12	... 10	
"	7	" XI	"	... Filthy bakery	... 13	... 13	
"	7	" XI	"	... Filthy eating house	... 47	... 47	
"	8	" XI	"	... Unclean workmen in bakery	... 5	... 5	
"	11	" XI	"	... Unregistered eating house	... 5	... 5	
"	35	" XII	"	... Bringing into Town meat of animals not slaughtered at the Municipal Slaughter House	... 1	... 0	
"	36	" XII	"	... Selling meat of animals not slaughtered at the Municipal Slaughter House	... 1	... 0	
"	3d	" XIII	"	... Misbehaving in public market	... 23	... 21	
"	3h	" XIII	"	... Occupation of portion of market other than stall	... 1	... 1	
"	9	" XIII	"	... Selling meat without license	... 2	... 2	
"	11	" XIII	"	... Filthy stall	... 99	... 99	
"	14	" XIII	"	... Unlicened stall	... 10	... 4	
"	27	" XIII	"	... Neglect to keep receptacle for refuse	... 5	... 3	
"	28	" XIII	"	... Throwing filth in passage of market	... 1	... 1	
"	31	" XIII	"	... Keeping stall closed without permission.	11	... 11	
"	34	" XIII	"	... Obstraction of passages in public market	82	... 73	
"	2a	" XIV	"	... Exposing food to dust and flies	... 220	... 201	
"	3	" XIV	"	... Sale of adulterated milk	... 74	... 65	
"	5	" XIV	"	... Refusing a sample of milk	... 5	... 5	
"	7	" XIV	"	... Unlicensed milk vendor	... 114	... 110	
"	12	" XIV	"	... Unlicensed common lodging house	... 1	... 0	
"	1 (1) of Defence of Colony Regu.			... Bread profiteering	... 11	... 9	
Regulation 49	made on Ord. 3	of 1897		... Occupying a house closed as unfit for human habitation	... 1	... 0	
Total					... 2065	1881	

No. 32.—WORK DONE AT THE DISINFECTING STATION DURING 1919.

Month.	No. of pieces disinfected.	No. of loads.
January	178	8
Febrnary	159	3
March	271	7
April	185	7
May	472	7
June	59	3
July	153	6
August	74	6
September	301	17
October	610	15
November	785	16
December	537	15
Total	3784	110

No. 33.—ANTI-MOSQUITO WORK, 1919.

(1) *Complaints from House-holders.*

Number of complaints received	...	...	64
do. premises visited	...	...	414
do. potential breeding places found	...	...	25,720
do. actual breeding places found	...	...	2,745

(2) *General inspection work.*

Number of premises inspected	...	...	1,505
do. tenements inspected	...	...	1,164
do. potential breeding places found	...	...	43,798
do. actual breeding places found	...	...	3,914

(3) *Summary.*

Number of complaints received	...	...	64
do. premises visited	...	...	1,919
do. tenements visited	...	...	1,164
do. potential breeding places found	...	...	69,518
do. actual breeding places found	...	...	6,659

No. 34.—DAMAGED FOODSTUFFS CONDEMNED, 1919.

				Cwt.	Qr.	Lbs.	
Beef	...	...	...	1	1	—	
Mutton	...	...	...	—	2	9 $\frac{3}{4}$	
Pork	...	...	...	—	1	2	
Fish	...	...	...	1	2	1	
Dry-fish	...	...	...	—	—	4	
Salt-fish	...	...	...	—	—	20	
Maldivé-fish	...	...	...	1	—	—	
Garlic	...	...	...	1	1	13	
Flour	...	...	...	—	—	—	4 bags.

At Customs.

Rice	103	bags.
Sterilized milk	181	tins.

At Chalmer's Granaries.

Rice	128 $\frac{1}{2}$	bags.
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No. 35.—REGISTERED TRADES, 1919.

	No. on Register at end of pre- vious year.	No. disconti- nued during the year under review.	New regis- tration during the year.	Total on register at end of year.
Dairies	45	7	6	44
Bakeries	36	4	9	41
Laundries	335	91	64	308
Eating Houses	405	86	76	395
Aerated Water factories	13	3	4	14
Opium divans	—	—	—	—

No. 36.—SLAUGHTER-HOUSE.

Number of cattle slaughtered	...	...	...	26,317
„ sheep and goats slaughtered	...	...	...	77,233
„ pigs slaughtered	...	...	...	3,586
„ cattle rejected before slaughter	...	...	...	321
„ cattle rejected owing to poor condition	...	...	...	270
„ sheep and goats rejected	...	...	...	4
„ cattle rejected after slaughter	...	...	...	24
„ sheep and goats rejected after slaughter	...	...	...	—
„ pigs rejected after slaughter	...	...	...	1

No. 37.—STATEMENT OF WORK DONE AT THE SLAVE ISLAND DISPENSARY.

Number of patients treated	...	...	...	18,975
„ visits by patients	...	...	...	39,611
Daily average attendance	...	...	...	126
Number of Municipal employees treated	...	...	...	53
„ outdoor visits paid by the Medical Officer	...	...	...	188
„ confinement cases visited by the Medical Officer	...	...	...	38

Health Visitors.

Number of visits paid to houses	...	...	...	21,708
„ houses where instructions <i>re</i> infant feeding given	...	...	...	3,896
„ visits to hand-fed children	...	...	...	739
„ labour cases visited	...	...	...	64
„ dispensary tickets issued	...	...	...	—

No. 38.—STATEMENT OF WORK DONE AT THE ST. PAUL'S DISPENSARY, 1919.

Number of patients treated	...	...	...	17,116
„ visits by patients	...	...	...	19,182
Daily average attendance	...	...	...	61
Number of outdoor visits paid by the Medical Officer	...	...	...	138
„ Municipal employees treated	...	...	...	87
„ confinement cases visited by the Medical Officer	...	...	...	120

Health Visitors.

Number of visits paid to houses	...	...	...	32,696
„ houses where institutions <i>re</i> infant feeding given	...	...	...	566
„ visits to hand-fed children	...	...	...	1,891
„ labour cases visited	...	...	...	95
„ dispensary tickets issued	...	...	...	19

No. 39.—STATEMENT OF WORK DONE AT THE MARADANA DISPENSARY, 1919.

Number of patients treated	...	...	...	1,267
„ visits by patients	...	...	...	2,330
Daily average attendance	...	...	...	38
Number of Municipal employees treated	...	...	...	3
„ outdoor visits paid by the Medical Officer	...	...	...	12
„ confinement cases visited by the Medical Officer	...	...	...	—

Health Visitors.

Nil.

No. 40.—WORK DONE BY THE MUNICIPAL MIDWIVES, 1919.

Number of confinements attended...	...	...	...	560
„ children born	...	...	...	562
„ still-births	...	...	...	26
„ deaths within two weeks	...	...	...	11
Death-rate exclusive of still-births	...	...	...	1.96%

No. 41.—CHANGES IN THE PERSONNEL OF THE STAFF, 1919.

Head Clerk.

Mr. J. C. Deweendre appointed Head Clerk, on 10th October, 1919, in place of Mr. A. VandenDriesen dismissed.

Clerks.

Mr. Philip Perera appointed Typist, on 29th April, 1919, in place of Mr. P. S. W. Jansz promoted.

Medical Officers.

Dr. J. G. Kannangara appointed Medical Officer of Maradana Dispensary, on 1st November, 1919.

Apothecaries.

Mr. C. P. Jayawardene appointed Apothecary of Maradana Dispensary on 1st October, 1919.

Health Visitors.

Mrs. C. E. Alphonso appointed Health Visitor of Maradana Dispensary, on 1st November, 1919.

Mrs. E. Raymond appointed Health Visitor of Maradana Dispensary, on 1st November, 1919.

Mrs. M. Samarasekera appointed Health Visitor of Maradana Dispensary, on 1st December, 1919.

Mrs. Maude Fernando appointed Health Visitor of Maradana Dispensary, on 3rd December, 1919.

Cemetery-keepers.

Mr. E. L. Herft appointed Cemetery-keeper, Kanatte, on 1st September, 1919, in place of Mr. P. F. Toussaint resigned.

Assistant Cemetery-keepers.

Mr. B. de Livera appointed Assistant Cemetery-keeper, on 3rd October, 1919, in place of Mr. E. L. Herft promoted.

Orderlies.

P. E. Perera appointed Orderly Maradana Dispensary, on 1st October, 1919.

Disinfecting Coolies.

Siman Appu appointed Disinfecting Cooly, on 14th March, 1919, in place of Charles Singho dismissed.

Don Girigoris Appu appointed Disinfecting Cooly, on 27th May, 1919, in place of Sarnelis deceased.

Don Neris Appu appointed Disinfecting Cooly, on 1st December, 1919, in place of Bastian Peter dismissed.

